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INTRODUCTION.

Although I am a Draftsman and can both draw and paint the plants that I collect, yet the expense of time in doing so, with the cost of engraving and colouring the drawings, are so great that I have but seldom availed myself of my talent and opportunities to publish costly figures of new or rare plants. I have preferred and I do now again prefer giving the specimens themselves for authentic figures. This can be done as cheap or cheaper than by multiplied figures: many splendid works of Iconographical Botany are often published at much higher rates. Copied figures are not always accurate, nor expressing many minute characters of surface &c, and some botanists are not satisfied until they can examine the original specimens of discoverers or improvers; or when wishing to detract from the merit of vast botanical researches, they deny the accuracy of whatever they cannot verify.

This *Autikon* of 2500 figures by specimens will be the best answer to any vain attempt to depreciate my discoveries and researches—although I have 5000 fine plants to illustrate in this manner, I have selected for this work, the rarest or new, else the finest or unfigured; such as will illustrate my botanical works and improvements, particularly those that shall be omitted in the North American Flora, lately undertaken jointly by Torrey, Gray and Nuttal, who have overlooked or left unnoticed many of our New Genera and Species, because either not met by them, or blended with others when seen in fields or herbals. Whence the need of giving sometimes the figures of akin species for contrast.

Whenever the plants have already been named and described by myself or others, It will be so stated, with a reference to the works where published. If yet new or undescribed, their synoptical description will be given; also their locality and some occasional remarks.

The principal works of mine, where such New Genera and Species have chiefly been described already, are the following.

Nov. pl. am.—New Gen. and Sp. of North America in Mitchell Repository and Desvaux Journal of Botany 1808.

Car. pl. sic.—New Plants of Sicily 1810.

P*rec. dec.*—Precis des Decouvertes 1814.

A*n. Nat.*—Analysis of Nature 1815.

Fl. lud.—Florula Ludoviciana 1817.

Dec. pl.—Decads of new plants 1817.

Rev.—Reviews of Pursh 1817, of Nuttal 1819 &c.

N. G.—50 N. Gen. of North Am. in Journal Physique 1819.

A*nnals*—Annals of Nature 1820.

Neog.—66 N. Gen, in Neogenyton 1825.

Med. fl.—Medical flora of the United States 1828-30.

N. G.—175 New Gen. sent to Decandole 1830

A*tl.* J.—150 new plants in Atlantic Journa 1832-3.

Herb. Raf.—Herbarium Rafinesquianum. 1838.

New fl.—New supplemental flora of North America 1000 articles, N. G. and Sp. 1836.

Fl. tel.—Flora Telluriana Mantissa. 1225. Ait. N. G. Sp. 1836.

Sylva tel.—Sylva Telluriana mant. with trees and shrubs of North America, 1075 articles, N. G. Sp. 1838.

Als. *am.*—Alsographia Americana or a grove of new Trees and Shrubs, 330 articles, 1838.

Pom. Am.—Pomona of native fruit trees of North America—Pterikon the Ferns of N. Am. &c—Erikon or the Andromedas, Heaths, and Ericoid Shrubs—Agrostikon or Figures of 800 Grasses and Cyperoides—will form parts or supplements to this great work, being similarly illustrated by self figures.

N. B.—The names of Authors will be abreviated as usual, L. for Linneus, W. Wildenow, Dec. Decandole &c. . . . but O. will imply *Omnes or all the authors.*

† This mark will indicate that having but few Specimens left, they will belong to the first, 2d or 3d complete sets to be disposed of.

CENTURIA 1.

VIBURNUM L. Subg. LENTAGO Raf. als. 219.
Autikon 1, *Membranaceum* R. als. 223 Florida.
2, *Laurifolium* R. als. 225—New Jersey.
3, *Ferrugineum* R. als. 226—New Jersey.
4, *Heterophylum* R. als. 227—Oquago Mts.
5, *Retusum* R. als. 228—Alabama.
6, *Squamatum* W en.—als. 229. once my *V. punctatum*—Atlantic marshes. In my Alsographia 30 sp. of Viburnum of N. America, are describefl and contrasted, whereof 16 are new, all in my herbal, I now give 6 as samples.

RIDDELLIA Raf. new fl. 856, sylva tel. 701. new genus of tribe Cleomides.

7, *Antiphyla* Raf. n. fl. 757, S. tel. 702. Louisiana undershrub.

8, ARBUTUS *andrachne* O—Grecia.

9, Dillenia *scandens* W—Australia. †
Psychanthus Raf. Spec. Sc. 1814.
10. *Myrtifolia* Raf. ut supra—Polygala do L. &c. Africa Austr.
11, P*hyllis nobla* L. &c—Canaria Ins.
12, C*orrea alba* O.—Australia.
13, Ripsoctis *egyptiaca* Raf. als. 52—Salix octandra, Sieber—Egypt.
Nestronia Raf. n. fl. 503, N. G. of tribe Daphnides,
14, *Umbellula* R. 504, shrub of Georgia &c.
JUNIA Raf. Dioica, fl. masc . . , fem. cal. 5part. persist. cor. 5part. lobis spatulatis truncatis,glandulis 5 oppos. (an stam. abort?) ovar. ovat. glabr. stylo 1 stig. 2fidum. capsula 2locul. sem. paucis planis ellipticis. *Fruiex, fol. oppos. fl. axill.*—N. G. near to Clethra and Cyrilla; but habit unlike, and perhaps of tribe Myrsinides if there are 5 stamens opposed to segments of Corolla. I restore for it the name of *Junia* given to Clethra by Adanson.
15, Junia *triflora* Raf. ramulis teretis rugosis fuscatis, fol. petiol. glabris, ovatobl. serratis acutis reticulatis. pedunculis axil. trifloris—pretty shrub, flowers small white, found nameless in a parcel of plants received from Florida, but whether Floridan, Antillan or African I am not sure.
16, Clethra *acuminata* Mx. Carolina.
17, Cl. *tomentosa* Lam.—South New Jersey.
18, Cl. *angustifolia* Raf. ramulis apice hispidis, fol brevi petiol. angustis cuneatis acutis, apice mucronato-serratis, subtus pallidis glabris,nervis hispidis: rac.gracilis lax. angul. puberis, bracteis linearib, pedic. eq. calicib. vix-acutis, furfuraceis, glauco-fulvis,—Florida

shrub, apparently very distinct from Cl. *alnifolia*. leaves quite narrow although as long.

19, Cl. *bracteata* Raf. ramulis teretib. fulvo tomentosis, fol. petiol. latoblongis, basi acutis, apice acum. ineq. serrulatis, subtus fulvescens granulatis, nervis tomentosis: racemis laxis, bracteis lanceolatis fl. longior, calicib. fulvis, toment. acutis—very peculiar sp. of Florida, leaves about 2 inches long and one wide, some bracts one inch long. †

20, Cl. *pumila* Raf. repens, caulib. erectis brevis simpl. apice angul. pubens, fol. petiolis hirsutis. obovatis utrinque acutis, mucronatoserrulatis, glabris, nervis subtus hirsutis: racemo brevis basi laxo, bracteis linear. ped. eq. calicib. obtusis furfuraceis—in South New Jersey, stem only 4 to 10 inches high with a single raceme and few small uncial leaves. If it is a var. of Cl. *alnifolia*, it is a singular deviation.

21, Cl. *cordata* Raf. ramulis angul. villosis, fol. ovatis, basi cordatis, apice obtuse acum. subintegris vix erosis glabris, subtus reticul. nervis puberis: racemis laxis ebracteatis, cano villosis, calicib. obtusis canis furfuraceis—sent me as the Cl. *arborea*, but totally unlike, by cordate leaves 3 or 4 inches long, 2 broad, not serrate nor oblong, racemes not spiked with rather long pedicels. Probably African. †

23, Diconangia *heterophyla* Raf. Itea Virginica L. &c. from New Jersey to Louisiana. I restore the excellent generic name of Mitchell and Adanson, tho bad one of Linneus being too short and meaning a Willow! I give it a new specific name quite appropriate, since the same shrub has leaves ovate and obovate,

oblong and elliptic, acute acuminate or obtuse; there is nothing permanent but the short petiols, margin serrulate, and pale or glaucous lower surface. Capsules conical villose in all.

CYRILLA L. &c, the *racemiflora* of MX. distinguished from the *antillana* is as variable in leaves as the last G. tne only permanent characters are the entire leaves with reticulate nerves on both sides; but I have found in the fruit characters for 3 distinct blended species.

24, *Cyr. polystachia* Raf. fol. reticul. pallidis mediocris petiolatis, infimis obov. obtusis, imis cuneatis acutis; racemis fascicul. elongatis, bracteis subul. brevis, capsulis subglobosis—Louisiana and Florida near waters, leaves 2 or 3 inches long, of a yellowish green, racemes 6 to 8 inches.

25, *Cyr. parvifolia Raf.* fol. retic. subsessilib. virens parvis, oblongis vel cuneatis obt, vel acutis vel acum. racemis fascic. abbreviatis, bract. subul. ped. subeq. capsulis ovatis—Florida and Alabama, leaves small mostly uncial, racemes 3 to 5 inches long.

26, *Cyr. fuscata* Raf. fol. reticul. brevipetiol. fuscatis amplis, sepe ellipt. obtusis, nonnulis obl. cuneatis; racemis geminis ternisque abbreviatis, bracteis subul. pedic. eq. capsulis oblongis—Alabama and Georgia, leaves most ly 3 to 4 inches long of a dark fuscate color above, paler beneath, racemes 4 or 5 inches long—all these shrubs have evergreen coriaceous leaves; but their shapes and color, with bracts and capsules are permanent distinctions.

27, FLORKEA *uliginosa* W. &c—Pennsylv. to

Louisiana, but rare every where. Completely described by myself in 1818 in Silliman Journal, and referred to tribe of Galenides, which has since been wrongly called Limnanthacea.

28, ODACMIS Raf. new fl. 828. N. G. of same family Galenides—*Od. fascicularis* Raf. 829—Florida. †

29, FORSKALIA *angustifolia* Mur—Tenerif.

30, STYLIPUS *vernus* Raf. Med. fl. new fl. &c—N. G. near *Geum* Ohio to Missouri.

31, CRESSA *cretica* L. O—Egypt, Syria, Creta.

32, CORNELIA *verticillata* Am. Ammania do Lam. O. †—Egypt. The Ammanias with 4 dentate calix from the G. Cornelia.

RONCONIA Raf. cal. camp. 4dent. adherens, cor. o. stam. 4, styl. filif. stig. capit. capsula membranosa uniloc. apice ineq. erumpens, placenta centralis. *Herba, fol. oppos. fl. axil, pedic*—another G. blended in Ammania, dedicated to Ronconi, it differs chiefly from *Cornelia* by uniloc. capsule.

33, RONCONIA *triflora* Raf. (Ammania auriculata nonulis) glabra erecta ramosa, ramis virgatis 4gonis, fol. linearib. obtusis basi dilatato cordatis, pedunc. sepe 3floris fol. brevior, bract. subulatis—Egypt.

34, BOYKINIA *humilis* Raf. rev. 1817. Ammania do L. A—North America. This G. has also the capsule uniloc. but the calix 8 dentate as in Ammania and 4 petals.

35, GLINUS *lotoides* L. O—Hispania &c.

36, RUTA *tuberculata* Forsk—Egypt.

37, EPLIDIUM *humifusum* Raf. Peplidium (ad Peplis) do Del.—Egypt.

38, DIDIPLIS *linearis* Raf. herb. et new fl.

737-8. Peplis diandra Nut. Dec.—Louisiana, Arkanzas.

39, SEMPERVIVUM *arachnoideum* W. A---Alps Tyrol. †

40, THESIUM *alpinum* L. O---Alpis.

41, *Thes. humifusum* L. O.---Hisp.

42, PAPAVER *alpinum* L. O—Alpis.

43, *Pap. cambricum* L. O—Cambria. †

44, MONTIA *fontana* L. O---Europa.

45, ATIRSITA pumila Raf. n. fl. 820-1. N. G. near Veronica, of Arkanzas. †

46, VERONICA *sparsiflora* Raf. n. fl. 825. Missouri.

47, *Ver. mollis* Raf. n. fl. 826. Origon.

48, LITTORELLA *flexuosa* Raf. n. fl. 748--- Alabama and Arkanzas. †

49, *Littor. lacustris* L. A---Europa.

50, LATHYRUS *auriculatus* Bert.---Sicilia.

51, VICIA *leptophyla* Raf. Dec.---Sicilia,

52. SAMOLUS *paniculatus* R. herb---Florida to Texas.

53, *Sam. acaulis* R. herb—Mts. Origon. †

54, *Sam. multicaulis* R. herb—Cireta.

55, *Sam. valerandi* L. Europa &c. Under that name have been blended 10 or 12 sp. distinguished in my Monograph, of which I now give 4.

56, ONONIS *reclinata* O---Sicilia Mts.

57, BISCUTELA *raphanifolia* Poir---Sicilia.

58, *Bisc. pilosa*, R. fol. cuneatis acutis sessilib. remote dentatis, siliculis dilatatis obreniformis glabris, margine dense ciliolatis.---In Arkanzas, small annual plant, half pedal, leaves 1 or 2 inches long, lower almost petiolate, upper oblong or lanceol. racemes short, flowers

small yellowish, style persistent, stigma capitate. †

59, FARSETIA *incana* Raf. Cheiranthus farsetia Desf. &c, Lunaria scabra Forsk---Egypt; Arabia. There is a 2d sp. *F. linearis*. The G. made a shbg. by Persoon is quite peculiar by elliptic silicles.

IONDRA Raf. diff. Thlaspi---Siliculis ovatis compressis margine alatis, latere nervo medio in stylo anceps decurrens. The name was an ancient one of Thlaspi.

60, IONDRA *arabica* Raf. Thlaspi do L. A.---Arabia, Palest. Egypt. †

61, BUFFONIA *tenuifolia* L. O.---Italia.

62, DESSENIA *scoparia* Raf. Struthiola erecta L. O.---Africa austr. Adanson's name of *Dessenia* is far preferable to *Struthiola* derived from *Struthium*, the Ostrich, without even any preceptible allusion.

CARGILA Raf. diff. Melampodium, Periantn. 4-5phyl. ineq. rad. fem 4-5, flosculis 4-8, sem. 4-4gona, apice nuda truncata---Cargila was Adanson's name for Melampodium.

63, CARGILA *dichotoma* R. caule dichot. sulcato, fol. subconnatis obovatis acutis scabris, latere subangulatis subtus glaucis, pedic. erectis ad dichot. lac. per. ovatobl. Sent me under the false name of *Melampodium longifolium*, neither applying nor found in authors. South America, erect pedal, leaves 1 or 2 inches, flowers very small. †

64, KUHNIA *elliptica* Raf. new fl.---falls of R. Cumberland in East Kentucky.

65, K. *cinerea* R.---Kentucky.

66, *K. media* R.---Alleghany Mts.

67, *K. eupatoroides* L---Philadelphia at a single spot. See my monograph of the genus,

and supplement thereto, where over a dozen N. Amer. sp. are distinguished.

68, OTHAKE *tenuifolium* Raf. n. fl. 923 .Stevia callosa Nut.---Arkanzas.

69 *Oth. longifolium* R. n. fl. 924---Arkanzas†

70, XETOLIGUS *brevifolius* R. n. fl. 925---Louisiana, another N. G. near Stevia.

71, FLAVERIA *contrayerba* Juss. Milleria do Cav---Peru. †

72, BŒBERA *glandulosa* W. O--Carol. ad Mex.

73, ALCINA *perfoliata* Cav. Wedelia do W.---Mexico. †

74, BRICKELLIA *cordifolia* El.---Carol. †

75, DIPLOSTELMA *pumila* Raf. n. fl. 317---Arkanzas. N. G. miscalled Chetanthera and Actinocarpus by some.

76, *Dipl. radians* R. n. fl. 318---Texas.

77, *Dipl. filiformis* R. n. fl. 319---Texas.

78, GRINDELIA *squarrosa* W. Donia do Pursh ---Missouri.

79, SIBBALDIA *procumbens* L. O---Alpis.

80, DUCHESNIA *fragaroides* Dec. Fragaria indica---Asia.

81, DICTAMNUS *albus* L. O---Italia.

82, RHINANTHUS *maximus* W.---Creta †

83, DIDYMOCARPUS *crenulatus* Lind.---Australia N. G. near Ruellia with uniflore scapes, leaves oblong obtuse crenate villose.

84, MAURANDIA *berkleyana* Lind.---Antilles.

TRIMISTA Raf. diff. Nyctago, cal. 3fid. ineq. cor. infundib. limbo plano trilobo, lobis ineq. emarg. stem. 5 ineq. hypog. non epipet. 3 major exerta filif. antheris glob, stylo exerto filif. stig. capit. granul. *fol. opp. fl. axil. et term.*

85, TRIMISTA *levigata* Raf. fol. petiol. glabris ovatis subcord. acutis integris, cal. ovatis a-

cutis---Central America, flowers large incarnate. One of the plants blended in Nyctago jalapa stated to grow in both Indies. †

86, LOPEZIA *bracteata* Raf. ramis virgatis, fol. sparsis petiol. ovato lanceol. acum. dentatis ciliolatis, racemis foliosis, bracteis similis. pedic. equante—New Mexico, bipedal. leaves uncial, peduncles filiform nodding. †

87, ENDOPOGON *pumilum* Raf. fl. tel. 196---Wasioto hills of Kentucky, N. G. near Hedyotis and the 2 next G. †

PLETHYRSIS Raf. diff. Hedyotis, cal. camp. 4part. ineq. foliaceus, cor. infundib. limbo 4part. lac. linear. revolutis, tubo intus villoso, stam. 4 eq. filif. basi villosis exertis, stylo filif. stig. 2 linear. capsula coronata 2loc. disperma. *fl. term. thyrsoideis, herba.*---The name implies multiplied thyrsus, very distinct inflorescence.

88, PLETHYRSIS *glauca* Raf. caule 4gono scabro, fol. subsessil. ovatis acutis scabris integris, subtus glaucis, thyrsis ovatis basi compositis foliosis, fl. subsessil. bracteis parvis lanceol.---Unaka or Iron Mts. of Carolina, flowers handsome incarnate, leaves similar to Cunila mariana. Perhaps *Spermacoce involucrata* belongs to same G, but differs by narrow hirsute leaves. and capitate flowers. †

89, STELMANIS *glomerata* Raf. Oldenlandia et Hedyotis do L. A---New Jersey ad Louisiana my G. proposed since 1818 means *unequal crown*, the generic characters is found in the unequal calix as in Plethyrsis, but the stamens are inclosed, stigma sessile capitate, capsule polysperm, seeds trigone &c.

90, OMONOIA *californica* Raf. fl. tel. 351 (in 1836) Elshotzia do Chamis. non W. Chryseis

do Lind. non Chrysis L.---Calif. et Origon.
91, GYNAMPSIS *flexuosa* Raf. herb. Clintonia Lind. 1830 non Raf. 1818---Origon.
92, CAMPANULA *alpina* L. O---Alp. Sibir. Amer. bor.
93, VERONICA *prostrata* Hoffm---Germ. Sibir. Am. bor.
94, COBEA *scandens* O.---Texas, Mex.
95, GLAUX *maritima* L. O.---Europa.

MARZARIA Raf. (bot) diff. Bocconia, cal. nullus vel evanescens, stam. 12-15 filif. anth. longis linear. ovar. obl. stipit. stig. unicum oblongum obt. ***Herba acaulis, fl. racem. compos.***—Totally unlike Bocconia which is frutescent, with 6-8 stamens, style bifid &c. This has habit of Heuchera.

96, MARZARIA *cordata* Raf. Bocconia do W. O—China, fol. longe petiol. cord. repandis, bracteis subul. †
97, EPIMEDIUM *alpinum* L. O—Alpis &c.

TROXIRUM Raf. Sylv. tel. 494. diff. Piper fol. opp. vel vertic. stigma obliq. &c.
98, TROXIRUM *villosum* Raf. toto villos. fol. subpetiol. opposit. ovatobl. apice atten. obtusis uninervis, spicis filif. glabris axil. et term. —Central America, sent me as Piper blandum, but very distinct, herbaceous erect, 6 to 10 inches high, leaves uncial, spikes biuncial.
99, *Trox. varians* Raf. Piper verticillatum L. O.—Antilles. Small plant 3 to 6 inches high, leaves variable obovate or oblong, opposite or 3-5nate, always sessile obtuse trinervate.
100, ZALITEA *linearis* Raf. new fl. 990—Arkanzas, fine N. G. of Euphorbides.

Thus this Century contains 28 N. G. of mine, whereof 7 now first described, with many new and very rare species.

CENTURIA II.

101. VESTIA vel LEVANA Raf. cal. urceol. tubul. 5dent. dentib. subineq. brevis. cor. tubulosa elongata subclavata basi angustiora, limbo 5fido vix patens, lac. acutis, stam, 5 exertis ineq. filif. antheris subrot. 2loc. stylo similis, stigma truncatum. Fruct .... *Frutex, fol. alt. fl. term.*—Very distinct G. sent me under 2 names *Vestia lycioides* and *Blairia pentandra*, I find neither in my Authors, it is certainly not a *Blairia*! I dont know who established *Vestia*, I give *Levana* (a nymph) as a synonym, in case it is also a blunder. The G. appears akin to the many blended in *Lycium* if the fruit is a berry, the unequal stamens are a character of this group, omitted by oversight in my reform fl. tel. 261 to 278, thus forming a family LYCIOIDES distinct from Ilexides; the Convolvulides differ by capsule and opposite stamens.

VESTIA *lycioides* vel LEVANA *uniflora* Raf. glaberrima, fol. sessilib. oblongis obtusis integris uninervis glaucis, basi cuneatis acutis, ramulis apice nudis unifloris—fine African shrub, leaves uncial, some smaller ones obovate in the axils, flower large biuncial, white or incarnate, nodding in anthesis. †

102, THEROFON *napelloides* Raf. n. fl. 902. Boykinia aconitif. Nut. non Boykinia Raf. previous—Mts. Unaka of Carolina. †

103, CALYMENIA *granulata* Raf. glaberrima, fol. angusto lanceol. basi acutis, apice obtusis, utrinque granulatis, margine flexuoso, fl. axil. solit. lac. perianth. ovatis acutis membranosis

glabris—Florida and Alabama, pedal, leaves biuncial.

104, ADOXA *moscatellina* L. O -Eur. Origon.

105, DECUMARIA *barbara* O.—Florida.

106, BUINALIS *floridana* Raf. n. fl. 830, Anychia do Baldw. Herniaria Americ. Collins Florida.

107, PLAGIDIA *rufa* Raf. n. fl. 834, 840. Anychia hernaroides? Mx. Florida.

108, ARGYROCOMA *imbricata* Raf. n. fl. 839 Paronychia argyroc. Nut —Carol.

109, *Argyroc.* *dichotoma* Raf. Achyranthes et Illecebrum do O.—Virginia.

110, BLUTAPARON *breviflorum* Raf. n. fl. 845, Illecebrum vermiculatum Mx. non L.—Florida.

111, DISCOPLIS *serrata* Raf. n. fl. 740—Florida et Cuba, N. G. near Tragia.

112. CARTREMA *odorata* Raf. Olea Americ. L. A—Carol. &c called *Pausia* in sylv. tel, 10, by mistake having a previous *Pausia* fl. tel. 1139. rectified in appendix. †

113, POLYGONUM *fimbriatum* El.—Alabama.†

114, *Polyg. articul.* L. O—Nov. Ces. ad Carol.

115, ARKEZOSTIS *quinqueloba* Raf. n. fl. 996. Boykinia trispora Nut.—Alabama: thus a 3d Boykinia, see 34 and 102. N. G. Cucurbitacea.

116, TRIODANIS *scabra* Raf. n, fl. 905—Mts. Alleghany.

117, *Triod.* *rupestris* Raf. n. fl. 906.—Maryland.

118, ERIGENIA *bulbosa* Nut.—Pensylv. ad Kentucky.

119, PELTARIA *alliacea* O.—Hungaria.

120, SHORTIA Raf. diff. Arabis et Draba stylo elongato persistens, stigma obt. siliculis

oblongis planis acutis sepe dimidiatis—G. established 1834, dedicated to Dr Short.

SHORTIA *dentata* Raf. Arabis do Nut. Draba do Hooker, Sisymbr. do Tor. et Arabis!—Kentucky, Missouri.

121, SEMETUM Raf. diff. Lepidium, stigma sessile bilob. silic. ovatobl. nervosa ad dissep. contrario angusta, valvis compressis carina obtusa, loculis 1-2 sp.—all my specimens are in fruit, thus flowers unknown, akin to *Dilaptiscum* if stamens 2, but silicle not emarginate. Semet was an oldname of Lepidium.

SEMETUM *ramosum* Raf. ramosa subdichot. fol. lin. cuneatis acutis glaucis integris, racemis ramosis, pedic. comosis filif. elongatis proximis —Florida. erect smooth, leaves uncial, flowers and silicles very small but profuse. †

122, DISCOVIUM *ohiense* Raf. N. G. 1819. Dec. &c.—Ohio. This G. although shown to Torrey in 1826, has not been admitted by him, and merely noticed as doubtful. It is near the last G. but the silicle is shorter not nervose, stigma entire, petals yellow. †

123, POLYPREMUM *squarrosum* Raf. P. procumbens L. O—perennis, caulib. erectis vel procumb. bisulcatis scabris fol. linearib. margine scabris, internodis longior, florib. sepe term. congestis, bracteis squarosis quaternis—Carol. Florida. I have revised this sp. to contrast it with the next. This curiuos G. does not belong to Scrofularides; but is very near Veronica, differing by habit like Scleranthus, corolla equal and 4 stamens, are they opposited? when it would be of family Primulides.

124, *Polypr. laxum* Raf. annuum, decumbens, caulib. laxis glabris bisulcatis, fol. lin. lanceol. margine glabris, internodis brevior, fl. so-

lit. ad dichot. bracteis sepe binis—Arkansas, Texas. Larger plant, leaves broader and longer, flowers quite sessile and never terminal.

125, ARENARIA *heterophyla* Raf. glabra caule pauciflоro, stricto simplex, apice fuscato subnudo, fol. planis obtusis, inferis subpetiol. cuneatis, medialis longe linearib. superis subulatis; axilis nudis, pedic. elongatis, calicib. acutis 3nervis, petalis spatulatis elongatis—Arkansas, near *A. tenella* of Nuttal but leaves very different not acute; flowers white rather large. petals over twice the calix, leaves often uncial.

126. *Aren. pitcheri* Nut. T.—Arkansas.

127, *Aren. squarrosa* Mx.—Nova Ces. Carol.

128, *Aren. lateriflora* O.—Niagara et Alleg.

129, *Aren. glabra* Mx.—summits of Allegh. Mts. I have it from Torrey himself found on top of Shawagunk Mts. of New York, a locality he has forgotten (like many others) in his flora.

130, *Aren. incurva* Allioni—Helvetia.

131, *Aren. trinervia* L. G—Gallia.

132, *Aren. verna* L. O.—Alpis.

133. *Aren. muralis* Sieb—Creta.

134, Aren. *setacea* (quid?) Gallia.

135, *Honckenya peploides* Erh. non W. Adenarium do Raf. n. fl. I. Dec. &c—Eur. marit.

136, *Honck. maritima* Raf. Aden. do R. n. fl. I. Holosteum succulentum L.—Am. bor. maritimis.

137, DIANTHUS *tripunctatus* Smith—Creta.

138, *D. aciphylus* Sieber—Creta.

139, *D. deltoides* L. O.—Alpis.

140, SILENE *rotundifolia* Nut.—Chio, &c.

141. *Sil. virginica* L. O. miniata Raf. an nat.—West Pennsylv. and Virginia, Kentucky.

142, *Sil. scabra* Raf. caule simplex scabro

apice glandul. pubescens, 1-3floro, fol. ovato lanceol. obtusis scabris uninervis. fl. brevi pedunc. cal. teretis enervis glabriusc. petalis bifidis, corona biloba---barrens of West Kentucky, bipedal, leaves uncial and over, flowers large, calix uncial, petals red. †

143, *Sil. fruticosa* L. O—Sicilia.

144, *Sil. vulnera* L. O--Sibiria.

145, *Sil. gigantea* L. .O—Creta.

146, *Sil. sedoides* Jaq. Desf. W---Grecia.

147, CHLONANTHES *tomentosa* Raf. n. fl. 220 —Mts. of Virginia. I have modified *Chelone* mg. turtle into Chlonanthes mg. turtle flower.

148, C*hlon. latifolia* Mg.—Kentucky.

149, C*hlon. glabra* L. O.—caule simplex bisulcato, fol. petiol. obl. lanceol. glabris obtuse acum. pectinato serratis, fl. spicatis involucr. bracteis ovatis acutis—N. Amer. near water, fl. white. A powerful bitter medicament see my medical flora.

150, C*hlon. montana* Raf. caule ramoso, ramis patulis 4sulcatis, fol. subsessil. lanceol. longe acum. subserratis glabris, florib. capitatis involucratis, bract. ovatis acutis—Mts. Wasioto or Cumberland, bipedal, leaves narrow triuncial, flowers incarnate crowded in a short head.

151, HEMITOMUS *lanceolatus* Raf. Herbacea glabra ramosa, ramis virgatis bisulcatis, fol. petiol. lanceol. pectinato serratis, oppos. ternisque racemis laxis, fl. alt. bract. lin. integris—Antillis and Florida. Stem bipedal, leaves small uncial, flowers large scarlet. One of the sp. blended in *Hemimeris coccinea* or *linearis* of authors, very different from *Hemitoma fruticosa* L'her. The G. Hemitoma has 4 stamens, Hemimeris only 2.

152, CYMBALARIA *alpina* Raf. Linaria do O.

153, C*ymb. vulgaris* R. Linaria cymbal. O.
154. C*ymb. egyptiaca* R. lin. do O.
155, C*ymb. triphyla* Raf. Lin. do O.—Sicil.
156, Peloria *linaria* Raf. Genus monstruosus, mirabilis, hybridus &c.
157, Myctanthes *punicea* Raf. n. fl. 229. Genus ad Peloria similis incolit ad Aster and Solidago—Philadelphia.
158, *Myct. latifolia* R. n. fl. 230—Allegh. M.
159, *Myct. axillaris* R. n. fl. 231—Allegh. m.
160, Claytonia *linearis* Raf. fol. binis ineq. sessilib. linearib. acutis racemo paucifl. equante, cal. obt. petalis obovatis—Arkanzas, triuncial, slender, leaves uncial,very narrow, fl. incarnate.†
161, C*laytonia dilatata* Raf. carolinana Mx ? fol. binis eq. ovatolanceol. subpetiol. acum. racemo multifloro brevior. cal. subacutis, petalis obov.—Novanglia, triuncial, leaves uncial.
162, *Clayt. perfoliata* O.—Amer. bor.
163, C*layt. sibirica* O.---Sib.
164, Hottonia *inflata* Mx.---Kentucky.
165, Mikania *saturefolia* Lam.---M. Video.
166, Margyrocarpus *setosus* Ruiz. Pav.---Chili ad Paraguay. †
167, ACTARTIFE Raf. diff. Boltonia, Rad. sepe 20, angustis subintegris, sem. obl. compr. mutica, apice integra vel denticul.---Types the sp. blended in *B. asteroides*, the real G. *Boltonia* with 2 sp. *glastifolia and diffusa* E, has 30 to 40 rays 3dentate, seeds winged with 2 or 4 bristles. Actartife was an ancient name of Anthemis.

Actartife *cuneifolia* Raf. caule erecto paucifl. sulcato, fol. sessilib, cuneatis mucronatis, margine integro scabro, infimis subspatulatis, pedunc. subnudis---Florida, found by Baldwin, deemed *B. asteroides*, which differs by leaves

oblong amplex. dentate, lower pinnatifid. Stem pedal nearly simple, leaves uncial, flowers like Erigeron, perianthe imbricate subulate as in all Boltonias.

168. *Actartife angustifolia* Raf. caule dichot. corymboso angulato, fol. sessilib. longo linearib. acutis margine scabro integro, pedunculis squamosis, sq. subulatis---Delaware, mistaken for *B. glastifolia* by Nuttal, not even of same Genus and leaves not serrate. Stem bipedal, leaves 1 or 2 inches long, flowers small, habit quite similar to Erigeron philadelphicum.

169, LOMAXETA *verrucosa* Raf. n. fl. 919. Hymenop. corymb. Baldw. Polypteris integrif. Nut.---Florida.

170, *Balduina bicolor* Raf. n. fl. 920---Florida. †

171, NEACTELIS *strigosa* Raf. n. fl. 910---Florida.

172, AIMORRA *acuminata* Raf. n. fl. 912—Florida, this and last G. near Acmella and Espeletia.

173, BINDERA *ciliata* R. n. fl. 915---Louisiana, N. G. near Asters, differs by perianthe simple. †

174, NEURELMIS *pumila* Raf. n. fl. 918.—Cuba, very singular flosculose G. I had called it once Jalambica from the discoverer; but there is a previous Jalambica of Llave. †

175, MARSHALLIA *spiralis* R. n. fl. 933—Arkanzas.

176, *Marsh. temifolia* R. n. fl. 934—Florida

177, OPICRINA *latifolia* R. n. fl. 955—Kentucky, the Narbalia crepidinea belongs to this Genus.

178, DARLUCA *prostrata* Raf.—Florida N. G. near Evolvulus, but with irregular corolla.

179, Stylisma *peduncularis* Raf. n. fl. 871 —Alab. Flor. This G. is formed by the sp. blended in Convolv. tenellus, trichosanthes,sherardi &c.

180, *Styl. heterophyla* R. n. fl. 869--Florida.

181, *Styl. elliptica* R. n. fl. 870—Alabama.

182, Plesilia *cuneifolia* R. n. fl. 874—Nov. Ces. &c. †

183, Panax *americanum* R. med. fl. ic. n. fl. 878—N. Amer.

184, *Panax trifolium* L. O—N. Amer.

185, *Panax lanceolatum* R. n. fl. 877---Allegh. m.

186, Ansonia *tenuifolia* R. n. fl. 880-Florida.

187, A*ns. angustif.* O---Carol. &c.

188, A*ns. ciliata* Walt.---Carol. †

189, A*ns. salicifolia* O---Kentucky ad Lousiana.

190, A*ns. elliptica* Raf. fol. ellipt. acutis---Alab. †

191, A*ns. latifolia* O---Virg. Carol.

192. Lyonsia *cuspidata* Raf. n. fl. 883---Florida. †

193, Anantherix *grandiflora* R. n. fl. 884 ---Arkanzas.

194, A*n. verrucosa* Raf. Asclepias connivens E.---Alabama.

195, A*n. viridis* Nut.---Carol. †

196, Oligoron *longifolium* R. n. fl. 886. Asclepias do Mx, floridana Lam.—Florida ad Arkanzas.

197, *Olig. tenuifolium* R. n. fl. 887.—Arkanzas.

198, Otanema *latifolia* R. n. fl. 889---Allegh. M.

199, *Ot. ovata* R. n. fl. 890---Novangl. ad Virg.

200, *Ot. lanceolata* R. n. fl. 891. Asclep. do Ives &c---Novangl. ad Kentucky. All the above N. G. from 186 are of Asclepides tribe.

This Century contains 25 N. G. whereof 4 now first described with 14 N. sp. now described.

CENTURIA III.

201. EVACTOMA Raf. diff. Silene et Cucubalus, cal. infl. camp. 5fid. membranosis, petalis 5 flabellatis multifidis non coronatis, stylis 3, caps. 3loc. 3valvis, *fol. verticil. fl. subracem.*—This deserves to be a G. by habit and characters, the name means *well cut star. Evactoma stellata* Raf. Cucub. et Sil. do O---N. America.

202, CUCUBALUS *baccifer*, L. Europa, the only real type of this G. with calix as in evactoma but deeper 5fid, petals bifid, capsule baccate, leaves opposite, fl. in forks. called *Moenchia* by Necker, not of others.

203, OBERNA Ad. Behenantha Otth. diff. Cucubalus, cal. urceolato inflato 5dent. interdum reticul. basi umbilic, Capsula sicca. &c. —blended with Cucubalus and Silene by all authors.

204, OBERNA *nivea* Raf. Silene nivea Dec. Cucub. do Nut.—Susquehannah, one of the rarest Amer. plants, found by me since 1804. †

205, OBERNA *reticulata* Raf. caule erecto dichot. anceps, fol. brevis lanceol. acutis, basi membrana connatis, fl. corymbosis, cal. amplis reticulatis, petalis flabellatis bifidis nudiusculis —Sibiria or N. W. America, internodes long, leaves short seldom uncial, flowers large white, calix exactly as in the G. base deeply umbilicate, 5 large teeth.

206, *Oberna fabaria* Raf.—Sicil. Creta.

207, XAMILENIS Raf. Nanosilene! Oth. nom. pessim. diff. Cucubalus, cal. camp. urceol. non inflatus 5dent. petalis emarg. subnudis, caps. sicca. *fol. cespit, ped. 1fl. fl. dioicis*—very distinct by habit &c, the name means *dwarf pink.*

XAMILENIS *uniflora* Raf. Silene acaulis L. O —Labrador.

208, PLECONAX Raf. diff. Silene, cal. ovatis conicis inflatis 5dent. 30 sulcatis, 30 nervis, basi umbilic. petalis bifidis, caps. lageniform. uniloc! *caulib. simplex, paucifl.*—very peculiar calix giving name to the Genus.

PLECONAX *striata* Raf. Silene conica L O—Europa.

209, ALIFIOLA Raf. diff. Silene, cal. ovatis lageniformis, 5gonus 5pteris 5dent. basi acutis, petalis angustis apice bilobis. caps. sessilis uniloc. globosa, pericarpium duplex, extus crustaceum 3dent. intus membranosum sem. globosa. *dichot. fl. term*—very singular G. that I cannot refer to known sp. the fruit quite peculiar, not pedunculate as in most of akin, swelling the calix in the shape of a gourd or urn, with 5 wings, the name implies this: 2 sp.

ALIFIOLA *dichotoma* Raf. levigata, caule tereto dichot. fol. amplexic. lanceol. acutis trinervis, fl. panicul. longe pedunc.—In Kentucky, disc. 1818 when called *Silene alata*, 12 to 15 inches high, leaves nearly biuncial and subequal to internodes, flowers of middle size, petals incarnate small on long claws, emarginate.

210, ALIFIOLA *floridana* Raf. glabra, caule simplex paucifloro, fol. linearib. acutis internodis brevior uninervis, fl. term. brevi pedunc.—Florida, disc. by Kin, habit of *S. antirrhina.*

only half pedal, flowers twice as large, equal to A. *dichotoma*, calix half uncial, wings not so broad nor reaching the base, petals red emarg. bilobe. †

211, IXOCA Raf. diff. Silene, cal. camp. 5lobis enervis, petalis apice 4lobis, stylis 3-5, caps. 3-5dentatis uniloc. *fl. term.*—The name is shortened from Ixocaulon of Greeks.

Ixoca *tenella* Raf. Silene 4dentata L. O.—Alpis.

212. OTITES Ad. Rat. diff. Silene, dioic. vel monoica, cal. camp. 5dent. 10nervis, petalis integris undulatis non connatis, *fl. paniculatis*—many sp. belong here *O. parviflora*, *O. sibirica* &c, with the 2 next.

Otites *cuneifolia* Raf. Silene otites L. O. fol. radic. petiol. cuneatis acutis, caulinis parvis linearib. basi membr. connatis, panicula gracilis, fl. verticil. ped. brevis glabris—Germania &c.

213, Otites *myrianthes* Raf. fol. linearib. parvis remotis sessilib. panicula trichot. subcorymb. fl. fastigiatis numerosis, pedic. elongatis glabris—Sibiria, sent me as *Cucubalus pilosus*, name not in the books, perhaps only a var. of last.

214, Gypsophila *corymbosa* Raf. caule erecto tereto, apice dichot, glanduloso, fol. remotis linearib. acutis, basi membranosis connatis fl. corymb. dichot. fastigiatis, bracteis scariosis cal. canis, caps. globosis—Florida, pedal, leaves uncial, flowers almost similar to Otites in size and form, but a real *Gypsophila* by cal. camp. 5angular. petals obovate entire white, capsule unilocular semi 4valve, valves obtuse. Thus of my subg. Aploma fl. tel. 190.

215, *Gyps. ternifolia* Raf. H. p. 17--Origon.

216, *Gyps. nudicaulis* Raf. caule rigido trichot. glauco nudo, fol. squamulis acutis brevissimis, panicula dichotoma laxa, pedunc. longissimis—Carpathian Mts. sent me under a false name, unlike any other, large plant, flowers small, calix hardly angular 5fid, capsule obovate semi 4valve obtuse.

217, *Gyps. muralis* L. O—Europa.

218, *Gyps. repens* L. O—Alpis.

219, *Gyps. suffruticosa* Raf. caule suffrut. basi ramoso genicul. fol. basi imbricatis linearib. acutis. apice remotis subulatis, fl. corymbosis dichot. stylis elongatis, petalis integris---Carpathian Mts. semipedal, leaves uncial below. fl. white. calix membr. between the teeth. †

220, *Gyps.* (Vacaria) *cretica* Sm. Saponaria do L.---Creta, the subg. Vaccaria differs by calix more elongate, and petals emarginate.

221, ARROSTIA *paniculata* Raf. fl. Tel, 193--Sibiria, my G. Arrostia of 1810 differs from Gypsophila by calix not angular, capsule bivalve, fl. paniculate &c.

222, A*rrostia parviflora* Raf. caule tereto dichot. fol. lin. lanceol. acutis glabris uninervis internodis eq. basi subconnatis, paniculis corymbosis, cal. globosis semi membranosis, petalis integris---Armenia or Caucasus, sent me as *Gyps. altissima*. but very different, smaller leaves narrower uncial, flowers white very small the calix has 5 green stripes under the teeth †

223, TUNICA *dianthoides* Raf. fl. T, 195. Gyps. do Sm.---Mts of Creta, the old G. Tunica of Dalechamp by me restored is medial between Gypsophila and Dianthus, having the angular calix of the first. but caliculate as in the last.

224,---*Tunica podolica* Raf. caule dichot. fi-

lif. fol. remotis lineari-filif. adpressis pedicellis elongatis unifloris, caliculis sq. 2-4 lanceol. acum. petalis cuneatis retusis---Podolia, sent me by Decandole (by mistake) as *Gyps. struthium* a Spanish plant totally different; nearer to Tun. or Gyps. *rigida* which has flat leaves and biflore peduncles. Stem pedal, leaves half uncial flowers incarnate, calix membranose except the 5 angles and teeth.

225, SAPONARIA *ocymoides* L. O.---Alpis.

226, *Sap. illyrica* L. O.---Sicilia.

228, AGROSTEMA *celirosa* L. O.---Sic. ad Montes.

229, *Agr. coronaria* L. O.---Italia.

230, LYCHNIS *floscuculi* L. O—Europa.

231, *Lych. alpina* L. O---Labrador †---Subg. *Nestelmesa* Raf. without crown.

232, *Lych. chalcedonica* L. O---Oriente.

233, EXEMIX Raf. diff. Lychnis, cal. teretis subenervis 5fidis, basi bract. caliculatis ut Dianthus, petalis coronatis flabellatis fimbriatis the name means *out half calix* shortened from Exohemicalyx.

EXEMIX *grandiflora* Raf. Lychn. do Jaq. coronata Thunb---China. fol. ovatis acum. subt. glaucis, bract. 2 lanc. acum. petalis emarg. †

234, STERIS *viscaria* Raf. Lych. do L. O.—Europa. The G. Steris of Adanson is well distinguished by calix clavate 10nerve, petals entire caps. 5locular on a long stipe or podogyne.

235, PHYSOCARPON Necker, Melandrium nonnulis, diff. Lychnis fl. dioicis cal. obl. 5nervis 5dent. petalis bifidis coronatis, unguibus sepe coalitis, caps. uniloc. 5valvis—the Lychnis dioica of L. blending probably 3 or 4 sp. forms this G. evidently distinct.

Physoc. arvense Raf. pubescens, caule di-

chot. striato, fol. obl. vel. ellipt. acutis scabriusc. panicula dichot. bract. lanceol. caps. conicis—the most common European sp. flowers white.

236, *Physoc. capitatum* Raf. piloso, caule simplex sulcato, fol. cuneatis obovatisque acutis ciliatis reticulatis, fl. capit. involucratis, caps. subrot.—Germania, fl. incarnatis, a smaller plant.

237, *Physoc. vespertinum* Raf. caule piloso angulato subdichot. fol. lanceol. glabriusc. acutis, fl. term. paucis pedunculatis, caps. ovatis—Sent me as Lychnis vespestina and nocturna from England and Germany, although no such names in books; pedal leaves longer and narrower than in others, flowers incarnate.

238, Silene (Viscago) *furcata* Raf. pubescens, caule bifloro vel furcato, ramis uniff. fol. cuneatis acutis, superis lanceol. remotis paucis, cal. brevis teretis, dentib. latis, petalis brevis angustis bifidis—Labrador and Hudson Bay, remarkably like the last plant, but a real Silene not dioical and with 3 styles, smaller 4 to 6 inches high, calix and petals shorter, incarnate.

239, Arocion Ad. Otth &c, differs from *Silene* by capsule unilocular, calix clavate 10nerved. The G. *Silene* requires a total revision and reform, of which I show the bases here; it was preposterous to unite 150 sp. with calix swelled, campanulate, oval, oboval, clavate, terete &c, smooth or nerved or winged, petals entire or divided, with or without crowns, capsule 1 or 3 locular. The subg. of Ottho and Dec. are more by habit than characters and often badly named.—The real *Silene* Raf. ought to have calix tubular obl, or terete, capsule 3locular, with some subg. yet—*Viscago* calix striate

or 10nerved—*Anevriphis* cal. not nerved—*Gymesia*, petals not crowned &c.

Atocion armeria L. O.—fol. ovatolanc. superis latioribus subcordatis, fl. corymbosis—Europa.

240, *Atocion armeroides* Raf. fol. oblongis, infimis cuneatis, superis lanc. angustior—Kentucky, Alabama &c, the American plant appears a deviation with narrow leaves and often few flowers—It has also 3 var. 1 *uniflora*—2 *pauciflora*—3 *albiflora*.

241, EBRAXIS Raf. diff. Silene, cal. ovatobl. levis vix 10nervis 5dent. in fruct. erumpens, petalis limbo brevissimo bilobo coronato, capsula urceolata 6dentata semi 3 locul. sem. papillosis —the name implies to be shortened, *Rupifraga* of Otth. was employed by Lin. see fl. tel. 243.

Ebraxis Virgata Raf. Silene Antirhina L. O. —N. Amer.

342, DIANTHERA *formosa* Raf, fruticosa, ramis teretis atropurp ramulis hispidis, fol. petiol. ovatis acum. subrepandis, basi acutis, superis hispidulis, fl. term. 3-5, cal. obl. ineq. cor. galea bident.—South America, sent me as *Justica formosa*, name not in books, a real *Dianthera*, and even a subg. therein, *Larnaplagis* Raf. different from the 5 subg. of my Dianthera fl. tel. 977, by—cal. ineq. cor. tubo recto, galea 2dentata, lab. subeq. 3fido, antheris curvis, loculis 2 proximis suprapositis diagonalis obliquis stigma acut—a fine shrub, leaves 3 or 4 inches long, rather thin, petioles and nerves hispid, flowers red nearly uncial.

243, DIANTHERA *linearifolia* Raf. Just do Lam. caule herb. costato flexuoso virgato, fol. sessilib. longis cuneato linearib. acutis integris

patulis, pedunc. 4gonis fol. brevior, capitulis paucifl.—Carol. Florida. this and all the North Amer. sp. of this G. belong to my subg. *Eupodanthes* fl. T. 977, so natural as to have been made a single sp. by some. This has long narrow leaves obt. triuncial. small heads and flowers.

244, *Dianth. longifolia* Raf. caule herb. costato rigido, fol. sess. lanceol. acutis longissimis, basi cuneatis integris patulis, pedunc. brevis sulcatis, capitulis depressis—found in R. Susquehannah, akin to last, but robust with large broad leaves, 4 to 6 inches long, perhaps a remarkable deviation.

245, *Dianth. repanda* Raf. caule rigido costato, fol. adpressis sessil. oblongis repandis, apice obtusis callosis, pedunc. longissimis 4sulc. sub4fl. —very distinct sp. from Arkanzas, smaller, with short leaves biuncial, larger flowers &c. †

246, *Dianth. ensiformis* Raf. Just. do Walt. pedunc. Mx. &c, repens, caulib. herb. 4gonis acutangulis erectis, fol. sess. lin. lanc. acutis subrepandis. pedunc. 4gonis fol. subeq. capit. spicatis—such is the most common kind from New England to Carolina and Missouri.

247, *Dianth. humilis* Raf. Just. do O.—repens, caulib. adscendens, costatis. fol. sess. obl. vel. cuneatis obtusis subintegris, pedunc. fol. longior angulatis, fl, spicatis—Alabama to Louisiana, 2 sp. have also been blended in J. humilis, this is small, semipedal or less.

248, *Dianth. heterophyla* Raf. caule recto acutang. fol. subsess. ellipt. vel ovatis vel. obov. vel. obl. integris vel repandis, sepe obtusis, ped. fol. subeq. spicatis—Carol. to Florida, pedal, leaves large quite variable, not at all humble, spike often of 5 remote flowers.

249, *Dianth.* (Eumala) *mollis* Raf. Just. lithospermif. nonnulis non omnis. Fruticosa mollis villosa, ramis teretis, fol. petiol. ovatobl. basi acutis, apice obt. acum. integris, fl. verticil. axill. sessilib. bract. linearib. galea emarg. labio dilat. 3lobo—South America, leaves uncial soft, flowers large white. The real *J. lithosp.* differs by rough oblong leaves, flowers peduncul. &c. This forms a subg. *Eumala* (well softened) by habit and calix subeq. cor. tube short & thick, upper lip ovate obt. emarg. lower very broad equaly trilobe, anthers oblique as in *Larnaplagis*, but the lower cell protruding or caudate as in *Uranthera.*

250, IDANTHISA Raf. (aspect fl. eq.) diff. Just. cal. 5 part. eq. cor. tubulosa recta, limbo subeq. 4fido, lac. unica supera magis divisa ut, galea plana integra, antheris sagittatis 2loc. loculis paralelis subobliq. insertis, stig. obt. *Frutex. semperv. fl. axil. subspicatis*—another N. G. of the Justicoides tribe, nearest akin to Adatoda fl. Tel. 969, but different by equal corolla, galea not concave, anthers bilocul &c.

Idanthisa *ligustrina* Raf. glabra, ramis teretis, fol. subpetiol. lanceol. acutis coriaceis integris, superis linearib. sessil. fl. axil. sess. solit, cor. lac. obl. obt.—Fine shrub, sent me as *Just. superba* (no such name in books) probably of E. Indies, leaves uncial, flowers large nearly 2 inches long, apparently red or incarnate.

251, RODATIA Raf. (bot.) diff. cal. ineq. cor. limbo bilab. galea brevis biloba, labio dilatata eq. 3loba, antheris curvis 2loc. loc. paralelis *fl. spicatis bracteatis*—very peculiar habit, unlike any of my G. except *Flavicoma* fl. Tel. 979.

Rodatia *reticulata* Raf. ramis 4cost. 4sulc.

fol. petiol. amplis ovatobl. acum. reticulatis. spicis obl. axil. and term. pedunc. bract. imbricatis ovat. acum. reticul. cor. lobis obtusis—South America, sent me again as *Just. formosa*, altho' quite unlike 242, leaves 4 to 6 inches long 2 or 3 wide, corollas red almost covered by the large bracts. †

252, *Elytraria virgata* Mx.—Florida. †

253, Adeloda *brachiata* Raf. Just. do P. &c, ram. brachiatis 4cost. 4sulc. fol. petiol. ovat. acuintegris basi obt. fl. panic. sessilib. cal. ext. bracteoso 2valv. ineq. obov. acutis—this and next belong to my G. A*deloda* fl. Tel. 972, with many sp. once blended in Just. bivalvis, the double calix external bivalve and corolla with 2 entire lips, are very peculiar. Florida.

254, *Adeloda verticillata* Raf. ramis erectis bisulcatis, fol. petiol. ovatobl. acutis repandis, basi acutis, fl. axill. vertic. pedunc. cal. ext. bracteoso 2valv. ineq. obov. obt. repandis.—Arkanzas and Texas, very distinct from. last, bipedal, leaves very thin 2 or 3 inches long. The internal calix in both appears short subulate, often multifid or pectinate, corolla incarnate, lobes unequal obov. obt. stigma obt. anthers exert bilobe, 2locular, but one cell abortive, filaments subul. flat.

255, Ruellia *strepens* L. O—Pens. ad Louis. subgenus Hemelosia.

256, *Ruel. tubiflora* Lec.—Florida.

257, *Ruel. ciliosa* Pursh &c---Florida, Car. Alab.

258, Hygrophila *oblongifolia* Raf. Ruellia do O.---This G. was formed by R. Brown upon unequal corolla, see fl. Tel. 993

259, *Hygroph. pilosa* Raf. pilosa hispida caulib. simpl. 4gonis, fol. subpet. lanc. vel obl.

acutis, fl. axil. cal. filif. hispidis, corollis tubifloris reticulatis—Kentucky and Alabama, distinct from last although often blended, flowers as large as in R. Strepens, leaves 1 or 2 inches.

260, *Hygroph. hypericifolia* Raf. caulib. strictis pubens 4cost. 4sulc. fol. sessil. ellipt, obtusis subcrenato repandis glabriusc. axilis bifoliosis unifl. cal. filif. cor. brevis venosis profunde lobatis—Florida to Alabama, habit of Hypericum and Ascyrum, leaves uncial, root perennial creeping, flowers small half size of the others, tube short, lobes oblong, blue as in all akin.

261, Sarazina *gibbosa* Raf. (vel grandiflora) purpurea L. non omnis—several sp. or var. are blended in this remarkable plant, difficult to characterize, and none are realy purple—fol. conformis subsessilib. obovato gibbosis, lutescens, ala ampla gibbosa, appendice renif. setis retrorsis, scapis flexuosis, cal. obt. vel retusis, petalis spatulatis—Canada to Virginia,swamps.

262, *Saraz. heterophyla* Eaton, appears to differ by leaves diforme longer petiolate, narrow wing. streight scape, flowers smaller, calix and petals undulate &c.—Novanglia, very rare.†

263, *Saraz. venosa* Raf. differs from gibbosa, by leaves short, with small wings, venose reticulate of red chiefly in the lid, scape streight flowers smaller— Virg. ad Florida.

264, *Saraz. parviflora* Raf. fol. sessilib, tubulosis, ala angusta, appendice concavo fornicato, scapis flexuosis, cal. latovatis acutis—very distinct sp. of Florida, yet akin to the last, leaves 3 to 6 inches long, nervose, flowers very small, purplish.

265, *Saraz. rubra* Walt. &c—Carol. Flori

da, leaves pedal, narrow lid ovate obt. flower red as in the preceding, rather large.

266, *Sarax. acuta* Raf. fol. tubul. longiss. nervosis ala angustissima, append. erecto renif. acuto—Alabama, I have not the flowers, leaves pedal with paralel nerves, base acute, mouth small, lid smooth. †

267, *Saraz. aduncа* Raf. fol. tubul. longis nervosis infundib. ala angust. append. ovato actunco glabro—Florida leaves pedal, lid with a hooked point.

268, *Saraz. flava* L. O—Carol.

269, *Sarav. variolaris* Mx—Carol. This fine G. requires yet an amending hand, notwithstanding the Monographs and labors of Nuttal, Croom, Eaton, Torrey who has only 6 sp. including S. *drumondi* and *psittacina.*

270, HYDROLA *ovatifolia* Raf. n. fl. 896—Arkanzas.

271, *Hydr. paniculata* R. n. fl, 897—Arkanzas.

272, *Hydr. caroliniana* Mx. 4valvis W.—Carolina. capsule bivalve, peduncled axils, 2-4flore, bracteate. stem and calix hirsute.

273, *Hydr. uniflora* Raf. caule flexuoso inerme glabro, fol. alt. lanceol. acutis subsessil. pedunc. axil. unifl. bract. 2 obl. ineq. cal. lin. glabris—Louisiana on Red River, sent me by Torrey as *Hydr. 4valvis.* but unlike the last, smooth, not spinose, leaves smaller biuncial, flowers bluish white, anthers blue shaped like *x*, caps. bivalve. †

274, EBERLEA *glomerata* Riddell Mpt.—Louisiana in water, singular G. sent me by Riddell in fruit without flowers, and thus I cannot be sure of the tribe; the habit and fruit is of the Justicoides—caule herbaceo atropurp. sim-

plex, fol. opp. decuss. sess. lanceol. obtusis margine scabris integris. fl. vertic. glomeratis (albis estivalis est Rid.) cal. 5part. lac. lanc. acum. capsulis obl. bivalvis biloc. valvis septiferis partibilis dorso sulcato, sem. ad sept. remotis renif, †—The Justicia chelonida of fl. ludov. 113 appears a 2d sp. of this G. differing merely by loaves acute, fl. geminate pedunculate; if so the corolla is campan. bilab. upper lip narrow reflexed bidentate, lower very broad 3lobe, It may be called *Eb. geminata.*

275. DIPLANDRA Raf. diff. Jussieva et Ludwigia, petalis 4, glandulis 4 lunulatis villosis ad petalis oppos. stam. 8 brevis, stylo breve.stig. glob. capit. caps. 4gona coronata latere dehiscens, intus subuniloc. placentas 8. *Fol. alt. fl. axil.*—the Amer. Sp. of Ludwigia, Jussieva, Isnardia and Ammania have been so blended, as to perplex all botanists: yet excellent characters can be found in the calix. stamens, glands and capsules, requiring yet some N. G. this is very distinct, the fruit is very peculiar almost clavate semi 4valv, nearly uniloc. with 8 filiform persistent placentas forming the 4 angles and nerves of surface, united at top in a kind of radiant arch, seeds minute.

DIPLANDRA *decurrens* Raf. Ludw. do Walt. Lud. justicoides Mx. Jussieva erecta Abbot t. 40, Pursh &c. caule ramoso tereto alato, fol. lanceol. decurrens acutis, fl. axil. sess. petalis subrot. caps. glabris alatis—Carol. ad Missouri &c, 2 or 3 feet high, leaves 3 to 6 inches, petals yellow, small.

276, *Diplandra heterophyla* Raf. caule humile basi ramoso vix alato, fol. infer. obl. obtusis vix decurrens, superis lin. lanc. obt. sessilib. —Louisiana, a deviation of last, pedal, leaves

small uncial or less, flowers and fruits similar.

277, DIPLANDRA *compressa* Raf. caule anceps vixalato, ramis fastigiatis filif. spicatis, fol. lanceol. sessil. acutis, ad ramis linearib. petalis obovatis, capsulis non alatis 8nervis scabrogranulatis—Florida, sent to Collins by Leconte as *Jussieva trachisperma*, bipedal, leaves biuncial, on twigs uncial, flowers pretty large.

278, *Dipl. montana* Raf. glabra, caule tereto simplex, fol. inf. parvis petiol. obl. obt. cetetis sessil. lanceol. obt. acum. fl. axil. solit. petalis obl. obt. cal. vix longior, capsulis clavatis 8nervis—Unaka Mts. of Cherokis, annual, pedal, lower leaves uncial, others large triuncial, petals white, called J. erecta in Collins Herb. as well as next, altho so unlike. †

279, *Dipl. pumila* Raf. nana glabra caule compr. simpl. fol. sess. lin. lanceol. obt. fl. sess. axil. parvis cal. ovat. acum. serrulatis, caps. clavatis—Florida, annual, 3 to 4 inches high, leaves few 1 or 2 inches, fl. small, petals yellow oblong.

280, *Dipl. ovata* Raf. Jus. do? nonnulis auct. J. grandiflora fl. ludov 317 non Mx.—caule compr. non alato vix ramoso, fol. sessilib. ovatobl. obtusis, superis obl. fl. subsess. cal. ovat. acum. petalis ovatobl. obt. cal. eq. capsulis clavatis 8nervis—Florida to Louisiana, pedal, leaves uncial, fl. small, petals yellowish.

281, ADENOLA Raf. diff. Jussieva Diplandra, cal. 5-6part. interdum deciduus, petals 5-6, stam. 10-12, alt. brevioribus, glandulis 10-12 ad stam. alt. stylo clavato, stigma turbin. capitato umbilic. capsulis teretiusculis, nervosis, subuniloc. septis evanescens, sem. numerosa 5-6serialis, ad placentis 5-6erectis liberis. caps. maturis corona carens apice truncata erumpens vix de-

hiscens. *Fol. alt. fl. axil.*—this will include the remainder of the N. American Sp. of Jussieva, the real Ludwigias being distinguished by capsules short angular cubical opening by a terminal pore

ADENOLA *grandiflora* Raf. Jussieva do Mx. &c—Florida &c fol. lanceol. acutis, fl. decandris, seldom producing seeds.

282, *Adenola glauca* Raf. Jussieva leptocarpa Nut. &c, erecta caule angulato hispido, fol. sessil. obl. et cuneatis acutis glaucis, fl. brevi pedic. sepe 12andris, cal. hisp. lanc. acum. trinervis, petalis eq. capsul. glabriusc. multinervis —Louisiana to Alabama, ultra pedal, leaves 1 or 2 inches, flowers small petals short, capsule very singular, when quite ripe uncrowned but still indehiscent, seeds peculiar cordate flat with truncate margin around.

283, *Adenola longipes* Raf. Ludw. peduncul. nonnulis non Mx. Eatonia amphibia Rid. Mpt. repens, glabra, caule assurgens flexuoso, fol. longe petiol. ellipticis vel latobl. utrinque acutis, fl. longe pedunc. fol. eq. sepe decandris, cal. lanc. acutis, petalis obov. venosis ad cal. longior —Florida and Louisiana in water, pedal, leaves large 2 to 4 inches long, 3 to 6 with petiols, flowers yellow larger than in last, 5 short alt. stamens often abortive or changed into glands, capsule as in last, but evidently 5locular when immature all seeds peculiar triquetrous oblong truncate at both ends, perhaps a subg. *Teresperma* Raf. as there is a previous Eatonia. Quite distinct from Ludw. peduncolosa with oppos. linear leaves.

284, LUDWIGIA *mollis* Mx. O—Car. Florida, Alab.

285. *Ludw. pilosa* Walt. Virg. Car. caule

angul. ramosa, fol. obl. obt. petalis cal. longior.

286. *Ludw. hirtella* Raf. n. sp. 2 (1808) *hirsuta* Pursh 1814? hirsuta, caule ang. virgato simpl. fol. snbamplex. lanceol. acutis vel obt. glaucis, petalis cal. eq.—Maryland and New Jersey, disc. by myself 1804 published 1808, 1-2pedal, leaves uncial base rounded, capsules 4gone on short peduncles.

287, *Ludw. pruinosa* Raf. pruimosa scabriusc. caule simplex subtereto colorato, fol. sessilib. nervo decurens lanceol. subacutis trinervis, fl. pedunc. cal. ovat. reflexis, petalis cal. duplo longiorib—Allegh. Mts. and Kentucky, pedal, stem red or fuscate, leaves uncial, flowers large pale yellow, akin to the 2 last and also to L. macrocarpa.

288, *Ludw. virgata* Mx. &c, non Elliot—Alabama, caule tereto, fol. lin. obt. petalis ochroleucis cal. duplo longior.

289, *Ludw. juncea* Raf. caule virgato angul. simplex, fol. remotis glabris linear. obt. superis minimis cuneatis, fl. racemosis, cal. ovatis acutis ad pet subrot. subeq —Alabama, near the last, but still more slender, leaves narrower, stem angular, flowers small yellow, petals round, stamens with 4 alt. glands or abortive stamens opp. to petals, style long, stigma very large shaped like an Agaricus.

290, *Ludw. lanceolata* Elliot—Florida, Car. stem angular, capsules sessile short 4gone.

291, Isnardia *angustifolia* D. R. Ludw. do Mx. linearis Walt.—Carol. Flor. Alab. I unite to Isnardia with Decand. all the Ludwigias without a cubical 4gone capsule, flowers often apetalous.

292, *Isn, glandulosa* D. R. Ludw, do Walt.

—Carol. Florida, mv specimens have the glands on stem, branched angular, leaves small petiolate obl. acute.

293, *Isn. cylindrica* D. R. Ludw. do Elliot —Carol. to Louisiana stem. ang, no glands, leaves sess. lanceol. acute 1-2 inches long, subrepand.

294, AMMANIA *linearifolia* Raf. ramosa O. ramis 4gonis virgatis, fol. linearib. obt. nonnulis basi dilatatis, fi. sepe verticil.—one of 4 sp. or var. blended in A. ramosa, this the largest bipedal. This G. only differs from Isnardia by calix 8dentate.

295. *Am. multicaulis* Raf. caulib. angul. virgatis simpl. fol. linearib. acutis, fl. sepe vertic—Virginia, pedal, leaves uncial.

296, *Am. teres* Raf. caule teres vix ramoso fol. obl. obt. carnosis, caulinis basi cord. ad medio. angustatis, rameis cuneatis brevis, fl. sepe solit—Virg. ad Carol. pedal, leaves twice as broad as in last, broader at both ends.

297, *Am. longifolia* Raf. caule teres vix ramoso, fol. elongatis gramineis acutis flacidis, basi cord. amplex. subtus glaucis, fl. sepe solit. —Arkanzas and Louisiana, leaves 2 or 3 inches long strap shaped not narrower in the middle, thin and flacid, not rigid as in the others, petals white.

298, *Am. diffusa* (quid ?) caule teres ramoso diffuso fol. spatulatis oblongis obtusis repando crenatis, basi angustatis vel dilatatis, pedunc. axil. 2-5floris—sent under that name (not in my books) without locality, probably Antillian, leaves uncial. fl. very small. Is it of G. Ronconia ? see 33.

299, CAMPANULA *divaricata* Mx.—Wàsioto or Cumberland Mts. of East Kentucky.

300, *Camp. erinoides* Mg. flexuosa, spinulosa, aparinoides of others——Pennsylv. New Jersey.

This Century includes 22 N. G. whereof 12 now first described and some restored, with over 40 N. Sp.

CENTURIA IV.

301, Boerhavia *atomaria* Raf. erecta nonnulis non L. glabriusc. caule erecto basi tereto apice obt. 4gono, fol. opp. petiol. ovatis acutis repandis erosis planis basi subtrunc. subtus pallidis atro glandulosis, panicula nuda 2-3chotoma, fl. subternis pedic.—Florida, pedal, leaves uncial, flowers minute, fruit 5gone obverse pyramidal 5sulcate sub5dentate, mistaken for the Antillan B. erecta by all the Northern Botanists, which differs by stem viscose pilosc, leaves undulate rough on margin not glandulose.

302, *Boerh. squamata* Raf. diffusa Baldw, Mpt. non L. caulib. diffusis vel adscendens teres furfuraceis, fol, opp. ternisque ineq. petiol. ovatis vel subrot. basis subcordatis, apice vix acutis, marg. subrepando scabris, subtus fulvescens squamatis glandulosis panic. paucifl.. dichot. bract. lanceol, fl. subternis sessilib. involucris subulatis—Florida, found by Baldwin, not in authors, smaller than last, semipedal perennial, leaves small semiuncial quite unequal, quite scaly beneath with black dots besides, fl. small few. The B. diffusa of India differs by stem & leaves smooth, not cordate nor scaly.—The G. Boerhavia must form many subg. 1 *Taludama* stam. 1 or 2, such as this and Br. diffusa,repens, hirsuta, erecta, atomaria, &c—2 *Saliunca* R. stam. 3 or 4, such as B, scandens, excelsa, re-

panda, 4andra—3 *Pleterina* R. stam. sepe 10. B. arborescens.

303, RHEXIA *glabella* Mx.—Florida. †

304, *Rh. lutea* Walt.—Car. Flor.

305, *Rh. lanceolata* Walt. angustif. E.—Car. Florida.

306, *Rh. linearifolia* Lam—Florida. †

307, *Rh, ciliosa* Mx.—Car. Alab.

308, *Rh. serrulata* Nut—Alab. Flor.

309, PARNASSIA *palustris* L—Canada.

310, *Parn. palustris* var. *parvifolia* R. diff. fol. parvis subtus punct. scapis angul. brevis fl. minor, cal. lanc—Mts. Allegh. †

311, *Parn. nudata* Raf. fol. cord. obt. subt. squamoso punct. scapis plurimis angul. nudis, vel bract. ellipt. obt. cal. ovat. obt. enervis, petalis obl. spatul. nect. multisetis—Mts. Unaka of Carol. leaves semiuncial, frutescent, scapes 3 to 5 inches long.

312, *Parn. rotundifolia* Raf. amer. et carol. nonulis—Fol. subrot. vel ovatis obt. integris. subtus punct. petiolis apice dilat. scapis teretis, folia parva sess. ovata, cal. ellipt. obt. enervis, petalis ovatis, nect. 5setis?—Mts. Saranac of New York, leaves uncial on long petiols, scape 4 to 6 inches, flower size of P. *palustris*, petals multinerve as in most sp. This and the 3 following sp. appear blended in P. Caroliniana of Bosc and Mx. or Americana of Muhl. unmeaning names.

313, *Parn. g andiflora* Raf. fol. longe petiol. grandis, orbiculato cordatis obtusis integris subtus glaucis glabris, scapis alatis teretis, fol amplex. similis, cal. brevis ovatis obt. 5nervis. petalis ellipt. obt. multinervis, nect. trisetis elongatis—Fine sp. of the Unaka or Cheroki Mts.

petiols 6 inches, leaves 2 inches long and broad scape pedal, flowers double size of P. palustris.

314, *Parn. glauca* Raf. fol. longe pet. ovatis obt. undulatis subtus glaucis glabris; scapis teretis anceps, folia sess. similis, cal. ovat. obt. enervis, petalis obov. multinervis, nect. sepe trisetis—Lake Ontario, Genessee R. and New Jersey, leaves uncial almost white beneath, scape 6 to 10 inches, flowers larger than in P. palustris.

315, *Parn. repanda* Raf. fol. longe petiol. ovatoblongis vel ellipt. obt. repandis, basi in petiolo decurrens, vel interdum subcordatis, subtus glaucis glabris, scapis compr. folia obl. parva, cal. ovat. obt. 3nervis, petalis obov. multin. nect. trisetis—Taconick Mts. of New England, large, leaves biuncial quite elongate, scape often pedal, flowers as in last. †

316, GRATIOLA *pilosa* Mx. Carol. Alab.

317, *Grat. 4dentata* Mx. E. non omnis Caule repens furfuraceo tereto bisulcato, fol. subulatis acutis 4dent. ad nervo carinatis, ped. fol. eq. cal. filif. caliculatus caps ovatis—Carol. Baldwin first noticed that 3 sp. were blended in Gr. 4dent. I therefore describe this in full to contrast with the 2 next. Flowers bicolor says Elliot, yellow streaked of purple and border white, capsule short in this and akin.

318, *Grat. ramosa* Walt. caule 4gono glabro erecto ramoso flexuoso, fol. lin. subul. acutis integris vel bident. enervis subtus convexis, ped fol. eq. cal. lin. ineq. ebract. caps ovatis—Carol. Alab. semipedal, leaves semiuncial, flowers yellow.

319, *Grat. callosa* Raf. caule teres furfuraceo erecto ram. fol. obt. callosis 4-6dent. planis nervosis, inferis obl. vel lanc. subtrinervis, cete-

ris linearib. ped. fol. eq. cal. lin. callosis ineq. bract. caps. globosis—Florida found by Baldwin, 4 to 6 inches high, leaves short, fl. yellow. This and last of Subg. *Psidiola* by calix rot caliculate.

320, *Grat. odorata* Raf. virginica L. O.—easily known by its fine smell like Jessamine, all over N. Amer.

321, *Grat. viscosa* Schw. Eat. virginica, El. Carol. Louis.

322, *Grat. carolinensis* Pursh—Carol. to Louisiana, to this Leconte and Eaton refer G. spherocarpa Elliot, and many other synonyms, that evince the previous confusion of this G.

323, *Grat. heterophyla* Raf. glabra diffusa flaccida, caule teres ramoso, fol. ovatis et obov. vel obl. integris vel subdent. obtusis vel retusis, ped. fol. longior, cal. lin. ineq. calic. cor. tubo elongato, caps. ovatis cal. eq.—New Jersey to Florida, 3 to 4 inches high, leaves uncial thin, peduncles filiform very long, corolla white and yellow.

324, *Grat. aurea* Mg.—New Jersey to Louisiana. It varies with leaves linear and lanceol. stem virgate erect or decumbent ramose.

325, Ambulia *rigida* Raf. fl. Tel. 966 Gr. anagallidea, Mx. Carol. to Kent. and Texas. All the Gratiolas with 4 fertile stamens belong to this G. of Adanson, Subg. *Aotalix* calix not caliculate, it varies with leaves cuneate, rhomboidal, oblong or obovate, always drying black and stiff.

326, Var. *obovata*, fol. sepe obovatis crenatis ped. longis arcuatis—Mts. Unaka. †

327, Var. *microphyla*, fol. obov. parvis crenatis, ped. brevior rectis—Florida. †

328, Var. *cuneata* fol. cuneat. vel obl. ped. longis rectis—Carol. Alab.

329, Var. *angustf.* fol. linear. oblong, ped. longis arcuatis—Florida.

330, *Ambulia micrantha* Raf. Grat. do Baldw. glabra caule 4gono, fol. angustobl. basi cuneatis, apice serratis obt. pedunc. sepe geminatis fol. brevior. cal. brevis, ovatis obt. bract. capsulis subrot. semi4valvis—Florida, disc. by Baldwin, leaves nearly like the last, but neither black nor rigid,small, calix not lanceolate, caps. not obl. bivalve. Perhaps a subg. *Impula* Raf. by this and capsule unilocular, style filif. short, stig. obtuse.

331, *Ambulia? psilosa* Raf. Grat. 4gona El. his own specimens yet not answering to his discription—glabra caule pumilo 4gono, fol. tenuis obov. vel obl. integris vel subdent. obtuse trinervis, ped fol. brevior. cal. ebract. subul. caps. subeq. ovatis compr. acutis—style and stigma as in last, stem 3 to 4 inches, leaves thin semiuncial, flowers small.

332, MACUILLAMIA *rotundif.* Raf. Monniera, and Herpestis do auct. glabra repens flexuosa, fol. petiol. ovatis vel subrot. pedic. fol. eq. caps. ovatis—Illinois, small plant. This G. was establ. by me in Neogen. 16, year 1825.

333, *Macuill. obovata* Raf. glabr. vel hirsuta prostrata non flex. fol. obov. vel. ellipt. sessilib. obt. ped. fol. brevior,caps. globosa—Virginia in the River Potomac. and in Louisiana, larger plant, leaves semiuncial.

334, *Macuill. amplexicaulis* Raf Mon. et Hesp. do auct—Carol. ad Florida.

335, HABERSHAMIA *cuneifolia* Raf. neog. 15. Mon. et Hesp. do auct.—Carol. Florida.

336, BAZINA Raf. (bot.) diff. Gratiola &c

cal. 5part. lac. angustis, subeq. cor. tubulosa infund. limbo obliquato ineq. lobis 5 ineq. stam. 4 didyn. 2 sterilis furcatis uniloc. styl. filif. stig. ..cut. caps. obl. semi 2loc. *fol. subalt. fl. axil. alt.*—G. medial between Ambulia and Ilysanthes

Bazina nudiflora Raf. Lindernia grandifl. Nut. glabra repens, fol. sess. imbricatis subrot. obov. vel dilat. enervis integris crassis undulatis obt. pedunc. solit. elongatis nudis, cal. lin. acutis—Florida, stem dwarf, 2 to 4 inches long, leaves small crowded, peduncles erect, flowers blue size of Ilysanthes, habit of Macuil. rotundifolia.

337, Ilysanthes *riparia* Raf an. nat. 96. Lindernia attenuata Mg. this G. differs from Lindernia by stamens 2 fertile and simple, from Bazina by corolla bilabiate, stamens stigma capsule &c, established by myself 1820—several var. alba, cerulea, incarnata, repens, erecta, angustifolia &c, capsule obl. acute, leaves dentate, lower obovate.

338, Ilys. *brevipes* Raf. glabra, diffusa prostrata, ramis anceps, fol. sess. obl. acutis integris conformis. pedic. brevis. fol. brevior, cal. subul. ad cor. subeq. capsulis ovatis obt. cal. eq—Allegh. Mts, of New Jersey and Pennsylv. small plant, leaves semi uncial, fl. small white.

339, *Ilys. geniculata* Raf. glabra prostrata, ramis agonis genicul. fol. ovatis acutis integris undul. ped fol. eq. cal. filif. cor. subeq. capsul. obl. acutis cal. brevior—Long Island & South New Jersey, large trailing stems 6 to 10 inches long, leaves semiuncial, flowers small incarnate.

340, *Ilys. monticola* R. (Mg.—Mts, Allegh. very rare.

341, *Ilys. refracta* R. (El—Florida Carol. very rare.

342, *Ilys. dilatata* R. (Mg. Pens. Carol.

243, *Ilys. anagallidea* Raf. (Mx.—Alabama Kent. It differs from last by—fol. ovatis acutis serratis superis angustis, ped. fol. subeq. cal. subul. caps. obl. acutis ad cal. duplo longior.

344, Hemianthus *micranthus* Nut—Philad.

345, Cryptina *minima* Raf. (Crypta N.) Peplis americana Pursh—Banks of Hudson & Delaware Rivers.

346, Dichondra *caroliniana* Mx—Florida and Louisiana.

347, Schkuhria *abrotanoides* Roth, Pectis pinnata Lam.—Mexico.

348. Ximenesia *enceloides* Cav. &c—Mexico. †

349, Piqueria *trinervia* Cav. &c,—Cuba, Mexico.

350, Cosmea *bipinnata* Cav. &c—Mexico.

351, Psiadia *glutinosa* Jaq. W. &c, Conyza do Lam.—Ins. Mauritius &c.

352, Rothia *integrifolia* vel andryaloides W. &c—Andryala rothia Pers.—Hisp. Sicilia.

353, Leptemon *lineare* Raf. (1809) Sylv. Tel. 372. Crotonopsis do Mx. O—New Jersey to Florida.

354, *Lept. ovalifolium* Raf. Crotonopsis do Collins herb. caule 2-3chot. squamatum, fol. opp. ternisque petiol. ovatis acutis subtus argenteis, fl. ad dichot, vel term. fem. subsess. masc. pedunc—Florida found by Baldwin; annual semipedal. leaves semiuncial thick nervose, flowers very minute, I cannot verify if the capsule is monosperm as in the G. the habit is quite like the next.

355, *Lept. ellipticum* Raf. Croton do Nut. Crotonopsis do W. *Heptanis* do R. syl. tel. 362---Kentucky, Tennessee Missouri &c. I have verified that it is of this G. Nuttal ascribes 2 seeds to it, I have only seen one, very large ovate obt. lucid, brown, in a trivalve capsule, calix 5parted subulate subunequal, annual pedal---caule squamat. 4-5fidum, ramis dichot. fol. opp. vel verticil. pet. ellipt. obt. vel acutis supra granulatis subtus glauco squam. fl. fem. axil. sess. solit. et glomeratis, masculis pedic. caps. glabris.

356, *Lept. verrucosum* Raf. Crot. ellipt ? El. caule squamat. 2-3dichot. fol. opp. ternisque,petiol. vel sessil. oblongis acutis, supra glaucis, subtus argenteis, florib. glomeratis laxis, masc. pedunc. capsulis tomentosis verrucosis—Carol. to Arkanzas, pedal annual, near last, but capsules quite peculiar with white warts, a single large seed oval biangular, calix 5parted equal, segments ovate obtuse much shorter.

357, HEPTALLON *graveolens* Raf. neog. 3 (1825) sylv. tel. 360, Kentucky, very peculiar G. by large follaceous unequal 7part. fem. calix, disc. by myself 1818, blended with the above by others, but not a Leptemon, nor they of this G. as stated in Sylv. tel. but all the sp. blended in Croton capitatum appear to belong to it. The capsule is also sometimes monosperm by abortion as in Leptemon.

358, *Hept. simplex* Raf. caule simpl. squamat. seminudo, fol. term longe petiol. alt. ellipt. acutis tomentosis, basi rotundatis, fl. term. paucis lamatis, masc. spicatis—Florida, annual,stem 10 inches high almost naked, leaves as in last but not cordate. †

359, *Hept. lanceolatum* Raf. caule trifido squamat. ramis toment, fol. petiol. alternis lanceol. acutis snbtus tomentosis, fl. term. paucis lanatis masc. subternis pedic.—Arkanzas annual, pedal, leaves uncial narrow.

360, *Hept. fruticosum* Raf. caule suffrutic. dichot. squamat. nudum, fol. oppos. petiol. oblongis undul. acutis subt. toment. flor. glomeratis capit. ad dichot. vel apice, tomentosis, fl. masc. spicatis, bracteis linearib. ciliatis—Arkanzas. very distinct sp. all the others being annual, flowers realy capitate. yet it is not the real *capitatum* of Mx. which has obtuse leaves and is herbaceous. Calix very large, segments unequal thick obovate, seeds often solitary large fuscate round lenticular.

361, Drepadenium *maritimum* Raf. neog. 4 Sylv. T. 357. Croton do Walt. El. &c non W. P. disjuntifl. Mx. This shruby G. has calix 4-6fid. equal, Elliot says 6fid, his own specimens are 4-5fid. *Cr. marit.* of W. Pers. &c with elliptic tomentose leaves and fl. spicate must be another sp. my specimens have mostly broad ovate leaves seldom subcordate, few term. fl. pedic. calix urceolate, segm. ovate obt. Carol. to Florida.

362, *Drepad. argyranthes* Raf. Croton do Mx. &c, non W. P.—Cuba, Florida. I refer this fine shrub to this G. some fl. being also 4fid. my specimen from Cuba of Jalambic and of Baldwin from Floride agree, but not at all with Wildenow—frutic. ramulis angulatis squamulosis, fol. alt. petiol, ellipt. vel obl. acutis vel obt. infimis obov. supra granulatis, subtus argenteis, fl. term. racemosis glomeratis argenteis.

363, Decarinium *glandulosum* Raf. neog. 5,

Sylv. tel. 358. Croton do L. O.—Hirsutum caule 2-3chot. angul. fol. subsess. alt. et verticil, obl. acutis serratis basi 2gland. fl. axil. et term. glomeratis paucis—Florida, Carol. bipedal, leaves uncial narrow. Several sp. blended in Cr. glandul. this is Elliot's and Mx. contrast with next and 369.

364, *Decar. latifolium* Raf. Crot. gland. Nut. Hirsut. caule vix ramoso teres, fol. longe petiol. ovatobl. obt. crenato serratis, infimis obovatis, fl. term. subsolit.—Cuba (Jalambic) Arkanzas (Nuttal) semipedal, leaves broad not glandular. capsule obl. seeds 3 ovate compr. brown.

365, MERLETA Raf. (bot) diff. Decarinium and Croton G. Monoica, fl. masc. 4fidis, apetalis, 4andris, fl. fem. cal. 4part persistens, ineq. stylo stig. 2, capsulis 4valvis 2loc, 2sp. *Herba fol. alt. fl. axil.*—Altho' I had revised and divided the G. Croton in my Sylva Tellur. I can hardly refer to my numerous G. several akin plants, such as this and others following; it is better therefore to distinguish and insulate them, this is more akin to some Tragias.

Merleta *microphila* Raf. caule ramoso filif. squamulos. fol. alt. petiol. obov. obt. vel retusis minimis integris, subtus squam. fl. axil. pedunc. sepe geminatis—Cuba, collected by Jalambic, deemed a Croton, small annual plant probably trailing, leaves and fl. minute.

366, VANDERA Raf. (bot) diff. Cascarilla (S. T. 339) fl. masc 5fidis 5andris? fl. fem. cal. 5part. ineq. patens persist, stylus 0, stig. 3lobo sess. caps. globosa 3coca 3sp. *Frutic. fol. alt. fl, axil.*—The calix very unequal, stigma &c make this a very peculiar G. totally unlike Croton or Cascarilla discolor.

VANDERA *discolor* Raf. Croton do Jal. mpt. non alis. suffrutic. glabra ramosa, fol. brevi petiol. ovatis ellipt. obt. integris, supra fuscatis, subtus glaucis, fl. axil. et subracem. pedunc. axilis 1-3fl—Cuba, small undershrub semipedal, habit of Phylanthus, leaves often uncial, fl. small, female on longer peduncles, calix obovate obt..

367, ALDINIA Raf. (bot) diff. Croton, fl. masc. minutissimis 5fidis, fl. fem. 5squamosis, ovar. ovatum, stylis 6 filif. *Herba repens, fol. alt. fl. spicatis densis, fem. glomeratis ad basis*—doubtful G. perhaps a *Semilta*, but habit quite unlike, almost like Glechoma.

ALDINIA *glechomoides* Raf. pubesc. caul. filif. flexuoso repens, fol. alt. petiol. subrotnudo cordatis profunde crenatis, spicis axil. pedunc. —also from Cuba and deemed a Croton by Jalambic, leaves size and shape of Glechoma, spikes with many minute flowers, fem. calix acute very short.

368, BANALIA Raf. (bot) diff. Croton, fl. masc. 4fidis ineq. stam. villosis, fl. fem. cal. 4part. ineq. lin. cuneatis persist. caps, 3loc. 3sp. *Herba fol. alt. fl. axil. solit.*—as near Tragia as Croton.

BANALIA *muricata* Raf. annua, ramosa, ramulis muricatis, fol. sessilib. subrot. vel obov. crenatis, fl. masc. sess. fem. pedic.—Florida, found by Baldwin, deemed a Croton, semipedal, leaves small, capsules oblong crustaceous fulvous pilose.

369. PLEOPADIUM Raf. diff. Croton. fl. masc. prof. 5fidis, apetalis, stam. plurimis liberis, fil. filif. antheris obl. fl. fem. 5part. apetalis. *Frutic. fol. alt. pilis glanduliferis obsitis*—Very near the G. Kurkas Ad. and probably

including some of the sp. thereto referred. The name means many stipitate glands.

PLEOPADIUM *ciliatum* Raf. Croton glandul. hortis! caule fruct. toment. fol. longe petiol. latovatis acum. integris. supra pubens, subtus villosis canis ut petiolis, margine glandulis ciliatis, ad axilis pet. fascicul. spicis brevis term. fl. fem. 2-3 ad basis, cal. obl. obt. toment—South America, totally unlike our Crot. glandul. nearer toCr. hirtum, which is annual with serrate leaves; leaves uncial, flowers rather large 30 to 40 free stamens.

370, CROZOPHORA *tinctoria* Raf. S. T. 369. Croton do L, O. the G. is of Necker—Sicilia Grecia-&c.

371, C*rozoph. plicata* Raf. Crot. do Vahl. &c—Egypt.

272, ALLOSANDRA Raf. diff. Tragia, fl. masc 4 sepalis, stam. 4-8, filam. brevis 2-4, utrinque 2antheriferis. fl, fem. 4-6part, reflexis deciduis,stylo trifido deciduo, capsula 2-3-4coca. loculis monosp. sem. globosis. *Herbac. fol. alt. fl. axil. racem. bracteatis*—all the N. Amer. sp. of Tragias appear to belong to this G. difficult to fix by the anomalies, yet quite distinct from the triandrous Tragias, the name implies different stamens.

ALLOSANDRA *verbenifolia* Raf. Tragia urens var. Auct. erecta simplex pubesc. fol. sessil. obovatis vel. cuneatis inciso serratis, basi integris, racemis pedunc. bract. lin. fl. fem. subsess. nutans, cal. sepe 6part. brevis, stig. 3 obtusis revolutis—Florida, found by Baldwin and Ware, semipedal, leaves uncial, 3 sp. have been mingled in our *Tragia urens*, this the next and linearis, none are urent.

373, *Allos. lanceolata* Raf. Trag. innocua

Walt, hirsuta suffrutic. simpl. fol. sessil. lanceol. acutis, basi cuneatis integris, apice serratis, subtus glaucis, racemis term. bract. lanc. squamosis, cal. glabris, fl. fem. sepe 4part. stylis 2 4fidis stigm. obt.—Alabama and Florida, pedal or less, base woody, leaves uncial, fl. minute few, capsules hirsute pendulous, often with 2 or 4 round lobes and seeds, or even only one by abortion.

374, *Allos. macrocarpa* Raf. Tragia do Mx. O.—Tennessee and Kentucky, hardly different from *Tr. urticifolia*, except by stem ramose diffuse divaricate, leaves dentate; habit very unlike the 2 last, by long petiolate cordate leaves, spikes filiform flexuose, bracts oblong; perhaps a subg. *Eteradis* Raf. by stigmas acute, cal. persistent 3part. subequal reflexed, the central trigone trifid placenta is also persistent after the seeds are fallen.

375, PARIETARIA *floridana* Nut. &c. called P. australis by Baldwin—Florida.

376, *Pariet. pensylvanica* Mg &c—Pens. ad Missouri.

377, *Pariet, heterophyla* Raf. ramosa diffusa, fol. longe petiolatis obt. inferis ovatis vel ellipt. superis lanceol. involucris 3phylis obl. linearis fl. longior, petiolis brevior, 1-3floris—Kentucky and Tennessee, decumbent, upper leaves uncial, lower much smaller. Annual.

378, *Pariet. suffruticosa* Raf. suffrut. decumbens assurgens ramosa, fol. brevi petiol. lanceol. obt. basi acutis. nonulis inferis obovatis; fl. glomeratis, involucrib. linearib. fl. longior, ad petiol. subeq.—Antilles and perhaps Florida, stem woody fuscate below, branches erect elongate, leaves uncial, lower smaller.

379, *Pariet. virgata* Raf. annua, caule ercc-

to simplex virgato basi aphyllo, vel fol. paucis linearib. fol. superis petiol. lineari-lanceol. acutis; fl. glomeratis. invol. subul. fl. equante—singular sp. only found once in the Apalachian Mts. of Virginia, pedal, leaves uncial or longer, flowers very small. †

380, *Pariet. rotundifolia* Raf. caule erecto simplex, fol. longe petiol. ovatis subrot. acuminatis; fl. glomer. invol. obl. fl. eq.—Florida, pedal, annual, pubescent as all are more or less, leaves uncial broad not obtuse.

381, *Pariet. falcata* Raf. caule erecto elato simplex, fol. brevi petiol. ovatis falcato-acum. basi acutis; fl. glomeratis, invol. obl. fl. eq.—Sibiria and Origon, large plant, leaves biuncial, &c. †

382, *Pariet. officinalis* L. O.—Europa. I add this to contrast with all the above, leaves obl. or lanceol. acum. acute, fl. densely glomerate, bracts obl. equal to fl. and petiols.

383. *Pariet. judaica* L. O.—Palestine.

384, *Pariet. cretica* L. O.—Creta.

385, *Pariet. rufa* Raf. rufo pilosa, fol. sessilib. linearib. obtusis, axillis foliosis; fl. glomer. lanatis, involucris fl. brevior, scariosis imbric. ovatis acutis stam. exertis.—Upper Missouri disc. by Bradbury, stem simple flexuose, leaves uncial, flowers so involved in hairs as to be difficult to analyze, and I am not positive if of this G. habit rather unlike the others. †

386, TRAUTVETERIA *palmata* F. M. Tor. Actea et Cimicifuga do Auctoris—Apalachian and Cumberland Mts.

387. CIMICIFUGA *americana* MX. &c, podocarpa El. Actea do Dec.—Apalachian and Unaka Mts. The real type of G. with petals and 2-6stipitate capsules.

388, DIPLEINA Raf. diff. Actea &c, cal. colorato 4sepalo, petalis 4 ineq. unguic, obl. stam. plura filif. antheris obov. pistilis 1-2 ovatobl. sessilib. stig. sess. magno plano. *fol. biterm. fl. umbellatis.*—Very striking G. by umbellate habit, probably blended with Actea and Blondia (see fl. tel. 279) by authors. I cannot tell if the fruits are berries or capsules. The name implies that the single pistil is often doubled in the same umbel.

DIPLEINA *umbellata* Raf. glabra. fol. 2-3furcatis biternatis, foliolis 6-9ineq. sess. vel petiol. obliq. ovatis incisis acutis, terminalis trifidis; umbelis term. 3-5floris, bract. 2-3subulatis—Siberia, sent me as an Actea! same habit, long petiols, folioles very unequal 1 or 2 uncial, flowers rather large white, calix rounded. †

389, HELENIUM *discovatum* Raf. new fl. 942 Florida.

390, *Hel. anceps.* Raf. n. fl. 943—Florida.

391, *Hel. flexuosum* R. n. fl. 944--Wabash.

492, *Hel. dichotomum* R. n. fl. 945—West Kentucky. †

393, *Hel. traxilum* R. n. fl. 946—Illinois.

394, Hel. *cuneifolium* Raf. caule subalato corymboso, fol. cuneatis obtusis integris angustis supra scabris, pedunc. filif. disco globoso—Unaka Mts. annual? ultra pedal, leaves small uncial, radical often oblong flowers rather small, calix obl. linear obtuse. †

395, Hel. *tenuifolium* Riddell Mpt. caule angulato ramoso subumbellato, ramis 1-2fl. fol. tenuiter linearib, obtusis integris imbricatis, axillis foliosis fascicul. pedunc. filif. perianthis sepalis linear. disco. glob.—Louisiana at Lake Pontchartrain, very distinct sp. disc. by Riddell, stem 10 to 20 inches high, leaves uncial

very slender and crowded, flowers very small but similar, seeds minute oboval compr. black, edges white, crown of 4 or 5 scariose scales ovate aristate.

396. H*el. 4dentatum* Lam—Louisiana, the real kind sent me by Riddell with lower leaves pinnatifid, disk ovate.

397, Bilamista *grandiflora* Raf. n. fl. 976—Louisiana, Arkanzas and Texas, beautiful plant very near the *Lisianthus russelianus* of Hooker, if not the same; but his figure and description do not agree, and do not express the character of the N. G. nor the fine opposition of stamens as in all Gentianides. t

398, Sabbatia *nervosa* or *Neurola arkanzica* Raf. n. fl. 975—fine subg. perhaps a Genus, Arkanzas.

399, Pleienta *5nervia* Raf. n. fl. 973—Louisiana.

400, P*l. leucantha* R. n. fl. 974. Salatia gracilis nonnulis non omnes—maritimis Novaces. ad Florida.

This Century includes 17 New Gen. whereof 8 now first described, with 24 new species.

CENTURIA V.

ENDOGENOUS OR MONOCOTYLES.

401, REGGERIA Raf. (bot) perig. 6-8part. persistens, sepalis 3nervisobl. obt. alt. angustior, sepe omnis ineq. stam. 6-8filam. ineq. filif. anth. subrot. ovar. apice 3lobo, stylo trigono clavato, stigm. obt. 3lobo. *Bulbosa, scapis* 1-3*floris bracteis foliosis*—Genus mediate between *Gagea* and *Skilla*, singular by often 7 or 8 stamens.

Reggeria *bohemica* (*vrl. rupestris*) Raf. Ornithogalum do W.—Bohemia on rocks, quite peculiar habit, radical leaves filiform, stem or

scape dwarf, with 2 or 3 leaves or bracts lanceol. acum. fl. pedunc. large yellowish.

402, Syncodium *nutans* Raf. fl. Tel. 52, Ornithog. do L. O.—Europa.

403, Loncomelos *pyramidalis* Raf. fl. T. 59, Ornithog. do L. O.—Lusitania.

404, *Lonc. narbonense* Raf. Orn. do O—Hispania.

405, Gagea *fascicularis* Sal. Raf. fl. T. 55. Ornithog. luteum Sm. non L.—Europa. nearly all the yellow sp. or Orn. belong to this G.

406, *Gag. spathacea* Sal. Ornith. do W.—Germania.

407, *Gag, minima* Sal.—Europa.

408, *Gag. fistulosa* Raf. Ornith. do Dec.—Gallia australis. †

409, Skilla *amena* L. O.—Russia, Grecia. This G. is distinguished by filiform stamens, see 13 fl. tel.

410, *Sk. mixta* Raf. autumnalis Nut. Mpt. non L. fol. scapo eq, 1-2 angustissimis planis, racemo brevis subcorymb. 5-8floris, bract. subul. membr. albis pedic. eq. sepalis lanceol. obt, Island of Anglesey, quite unlike the Sk. autumnalis without bracts see 413, scape and leaf 3uncial, flowers small blue. †

411, *Sk. filiformis* Raf. Ornithog. rupestre nonnulis non omnis. fol. filiformis scapo longior, scapo flexuoso, racemo 10-12 floro, bract. filif. pedic. eq. fl. erectis sepalis 3 ovatis acutis, 3 obl. obt—Africa australis. Leaves pedal carnose, flowers purple. Certainly no Ornithog. nor any akin G. not even O. rupestre with reflexed flowers. Probably forming with it and *O. juncifolium* a peculiar subgenus, Anthyron Raf. by perigone camp. 3 alt. larger, all uninerve, stamens short filif. equal, style long, stigma subcapitate. †

412, GENLISA Raf. diff. Skilla, perig. subeq. camp. persist. sepalis obl. uninervis, stam. brevis eq. subul. planis acutis, stylo filif. stig. obtusum. *fl. racemosis nudis non bracteatis*—Perhaps only a subg. like *Anthrgon* but lack of bracts very striking, stamens almost as in *Loncomelos*. Dedicated to Genlis the celebrated female writer for her botanical works. Characters near to Aglitheis, but habit unlike.

GENLISA *bifolia* Raf. Skilla do L. O.—Germania. My specimens have 2, 3 and 4 broad leaves in middle of stem, canaliculate obt. shorter than raceme 8-12flore, pedicels erect elongate.

413, *Genlisa autumnalis* Raf. Sk. do L. O. —Europa, leaves radical linear filif. short, raceme 5-7flore, pedicels short and spreading.

414, BULBINE *grecum* Sch. Anthericum et Phalangium do alis—Grecia filaments smooth filif. as in Skilla, G. hardly different, but root not bulbose.

415, PLEISOLIRION *liliastrum* Raf. fl. Tel. 76 Antheric. et Phal. do O--Italia, large white flowers.

416, ENDOGONA *ramosa* R. 74 Anther. et Phal. do O—Sicilia Creta &c.

417, LEMOTRYS *hyacinthina* Raf. fl. Tel, 601. Skilla esculenta O. ad Quamasia do distincta stam. rectis &c—Ohio ad Missouri.

418, IRIS *floridana* Raf. n. fl. 491—Flor. Alab. †

419, *Iris biflora* or virgata R. n. fl. 492—Unaka Mts. †

420, *Iris convoluta* R. n. fl. 493—Arkanzas, Texas.

421, *Iris brevicaulis* R. fl. lud. 55, n. fl. 494 —Louisiana ad Kentucky.

422, *Iris fulva* Mg. cuprea P. N. rubescens fl. lud.—Louisiana.

423, *Iris lacustris* Nut. Raf. new fl. 499—Lake Erie.

424, *Iris tripetala* Walt. E. n. fl. 500 tridentata Pursh—Carol. Florida.

425, CLINTONIA *biflora* Raf. n. fl. 429—Apalachian Mts. see in my new flora 426 to 448 my monograph of this fine G. of mine of 1817, quite different from *Clintonia* of Lindley 1829 which is my *Gynampsis*.

426, *Clint. angustif.* R. n. fl. 433—Allegh. Mts.

427, *Clint. nutans* R. new fl. 436—Oquago Mts. of New York.

428, *Clint. parviflora* R. n. fl. 443—summits of Central Alleghanies, of subg. *Onyxula* like next.

429, *Clint. odorata* Raf. n. fl. 444. Convallaria umbellulata Mx. &c—Canada to Carolina.

430, AGLITHEIS *melopolis* Raf. scaposa, fol. lanceol. scapo tereto eq. apice obtuse acum. umbella multiflora, spatha involucris poliphylis scariosis lanceol. sepalis ovatolanc. acutis ad stam. duplo longior—my G. *Aglitheis* fl. tel. 33 contains the Alliums with flat subulate stamens. This was sent me as the *A. obliquum* which is totally unlike and of another G. *Geboscon*. Probably Sibirian, leaves pedal, over one inch broad, flowers white pretty large, remarkable by the many leaved involucres giving the name. †

431, *Agl. 5flora* Raf. Allium do herb. p. 64. —Kentucky to Texas, vernal, inodorous, yet the *A fragrans* of many American Botanists, certainly not the African sp. of Ventenat &c, stamens subulate, flowers with unequal pedicels.

432, *Agl. tricocum* Raf. Allium do O.—No-

vanglia, Canada, remarkable by leaves after fl. elliptic, umbel 12-15fl. spatha uneq. diphyl. sepalis connivent ovate acute, capsules 3seeded. Type of a subgenus *Traxordum* Raf.

433, GEBOSCON Raf. fl. Tel. 36. This G. must include all the Alliums with filiform stamens as in Skilla, which are rather numerous.

GEBOSCON *lanceolatum* Raf. caulescens, fol. subpetiol. amplis lanceol. utrinque acutis; umbella globosa multifl. spatha reflexa dilatata erumpens, pedic. eq. sepalis ovatobl. acutis, stam. exertis—Sibiria and Alps, sent me as *Allium victoriale* and *ursinum* two sp. blending many probably, the *A. vict.* is a true Aglitheis with lanceol. stamens, this has them quite filiform, stem sesquipedal, 1 or 2 large leaves 8 or 10 inches long, flowers rather small ochroleucous.

434, *Geboscon triphylum* Raf. caulescent, fol. 3 alt. petiolis vaginans tubulosis, ellipticis obtusiusc. basi angust. multinervis; umbella globosa, spatha reflexa monophyla, sepalis ovatobl. acutis, stam. exertis—Sibiria or Origon, sent me also as A. *victoriale* but totally unlike the last, same flowers and stamens, but fl. whiter, stem pedal, leaves only 4 inches long. †

435, *Geb. ursinum* (vel petiolaris) Raf. Allium do L. O.--Alpis, my specimens have leaves lanceolate acute at both ends on very long petiols, spatha diphyl. equal, umbel 12-15fl. sepals lanceol. stamens inclosed.

436, *Geb. latifolium* Raf. scaposum, fol. brevi petiol. amplis ellipt. basi rotund. subcord. apice brevi acum. scapo tereto eq. umbella nuda sub 20flora, spatha nulla vel decidua, sepalis lanceol. acutis ad stam. longior, capsulis ineq. 3lobis—Origon or East Sibiria, very peculiar sp. akin to last, but leaves 6 to 8 inches long, 2 or

3 broad, petiol 2 or 3 inches, flowers white pretty large, capsule commonly with lobes or cells unequal. †

437, *Geb. geminatum* Raf. herb. p. 64. fol. lin. longiss. lato planis non striatis, obt. scapo equante filif. bifloro, spatha bivalvis eq. subul. lanceol. pedicellis 2 equalib. sepalis lanceol. stam. inclusis—West Kentucky semipedal, slender, fl. white, deemed *M. striatum* by Torrey, totally unlike the African sp. reduced to minimum of umbellate flowers.

438, *Geb. stenium* Raf. herb. p. 65. fol. filif. planiusc. obt. scapo breviorib. scapo tereto, umb. sepe 3flora, ped. eq. filif. spatha 3valvis ovato-lanc. acum. sepalis lanceol. acutis ad stam. longior—Illinois, fl. white vernal, scape pedal, leaves half size.

439, *Geb. tenellum* Raf. fol. filif. planiusc. obt. scapo breviorib. scapo filif. substriatum; umbella 2-4flora, pedic. filif. ineq. erectis, spatha bivalvis brevis lanceol. eq. obtusis, sepalis obl. ellipt. subobtusis stam. subequante—Florida, akin to the 2 last and also to G. *sulcatum*, but different from all, very slender 6 to 9 inches high, sometimes only 2 fl. as in *geminatum*, but unequal in length, white: deemed a N. sp. by Baldwin. All our narrow leaved and few flowed sp. have been mingled by our botanists with African sp. as *Allium striatum, fragrans, inodorum*, and all perhaps included in A. *ornithogaloides* of Walter, see 443 and 444.

440, *Geb. proliferum* Raf. scaposum, fol. lin. angustissimis planis nervosis obt. scapo tereto longior; umbella pauciflora sepe bulbo magno ferens in spatha centralis bivalvis, spatha ext. reflexa bivalvis, ovata pedic. ineq. flexuosis, sepalis obl. obt. stam. equante—Missouri, deemed

Allium mutabile by Collins, totally unlike, leaves 6 to 8 inches loug one line broad, scape sesquipedal, flowers only 3 fertile in my specimen large white, bulb central large ovate with a separate spatha. †

441, *Geb. rubrum* Raf. scap. fol. brevis linear. planis nervosis. scapo tereto ; umbella globosa, spatha bivalvis reflex. ovatis, pedicelis brevis, sepalis connivens obl. acum. ad stam. longior—Sibiria, sent me as *Al. rubrum* (not in books) and *Schenoprasum*, which has filiform fistulose leaves ! pedal and more, leaves semipedal, flowers rather large incarnate or red forming a globular head.

442, *Geb. acetabulum* Raf. scapos. fol. longis linearib. plaucis vix striatis, scapo longior tereto umbella sub 8flora pedic. equalis, spatha campanulata alba dilatata bidentata, sepalis ovatis acutis, stam. subeq.—Arkanzas and Texas, semipedal, very singular involucre shorter than pedicels, flowers white. †

443, *Geb. anisanthum* Raf. scapos. fol. longis linear. planis vix striatis, scapo filif. subeq. umbella 3-4flora, pedic. ineq. nonnulis brevissimis, spatha monoph. amplexicaul. sepalis obt. linear. obt. ad stam. longior—Florida, semipedal, leaves broader than in last, fl. white.

444. *Geb. sulcatum* Raf. scapos, fol. longissimis linearifilif. obt. scapo eq. tereto sulcato. umbella pauciflora, pedic. longis equalib. spatha eq. diphyla ovatolanc. acum. sepalis lanceol. acutis ad stam. longior—Florida, Baldwin mistook it for Al. inodorum, semipedal, umbel often of 5 flowers, pedicels filiform very long, fl. white.

445, *Geb. carneum* Raf. scapos. fol. longissimis linearifilif. striatis scapo eq. tereto fuscato,

umbella glomerata multifl. pedic. fl. brevior, ineq. spatha eq. diphyla ovatis subrot. retusis coloratis, sepalis ovatolanceol. acum. ad stam. longior—Origon Mts. 10 inches high, flowers incarnate and even the spathas or involucres, fl, larger than in the others.

446, GYNODON *rupestre* Raf. fl. Tel. 34—Rocks of Kentucky and West Alleghanies, blended with next in *Allium Cernuum* of Am. botanists, not of Caucasus.

447, *Gyn. elioti* Raf. ut. supra. *A. cern.* Mg. Elliot—Allegh. and Apalachian Mts. leaves broader carinate.

448, STELMESUS *stellatus* Raf. fl. tel. 35. Alium do Sims, Nat.—Alab. Louisiana.

449, ALISMA *subcordata* Raf. (1808) trivialis Pursh (1814) fol. ovatis ellipt. acum. basi subcordatis, bracteis membranosis dilat. ovatis acum. seminib. dorso sulcatis.—N. America, long mistaken for A. *plantago* with lanceol. leaves, or A. *cordifolia* of Sw. with obtuse deep cordate leaves. One or 2 feet high, leaves 2-4 inches long.

450, *Alisma parviflora* Raf. var. preced. Eat. Tor. fol. ellipt. subacum. basi acutis vel rotundatis, bract. lanceol. striatis, sem. dorso non exaratis—Pensylv. Kent. Alab. only 6 to 8 inches high, leaves uncial. flowers and fruits one fourth of last.

451, *Alisma montana* Raf. fol. minimis obl. utrinque acutis, paniculis paucifloris, bract. dilat. ovatis acum. sem. exaratis ?—Mts. Allegh. and Taconick, only, 3 to 6 inches high, leaves only half inch long, flowers nearly as small as in last.

452, *Alisma subulata* L. O.—Delaware River, rare, dwarf, habit of Isoetes, leaves

linear obt. with 2 rows of cells, longer than scapes.

453, *Alisma ranunculoides* L. O—Germania &c, habit of Ranunculus flamula.

454, LURONIUM Raf. diff. Alisma, cal. deciduus, disco globoso, pistilis paucis definitis 6-9 obl. stylo brevis term. sem. obl. scabris non cymbiformis. *Caulescens, fol. fascic. ped. unifl.* —certainly a G. by habit and characters, the name was an ancient one of Alisma.

LURONIUM *natans* Raf. Alisma do L. O.—Canada, Europa. fol. ellipt. vel subrot. obt. habit of Potamogeton.

455, DAMASONIUM *stellatum* Juss. Pers. Alisma damasonium L.—Europa borealis.

456, BUTOMUS *umbellatus* L. O.—Europa, one of the finest European plants.

457, METHONICA *gloriosa* Juss. Gloriosa superba L.—Malabar, one of the most splendid Lilies. †

458, SANSEVERIA (Salmia) *carnea* Raf. fol. anguste lanceol. acum. ineq. nervosis glabris, scapo fol. brevior, fl. spicatis ebract. cor. tubo brevis teres, stam. exertis stylo eq.—African? sent me under that name (not in books) of subg. *Salmia* by the corolla not filiform, bracts lacking &c. Leaves 2 to 6 inches long, scape 3 or 4, fl. 8 to 10 incarnate, anthers white. †

459, FUNKIA *cordata* Raf.—Japan.

460, *Funkia angustifolia* Raf. Japan, these 2 plants and some others once blended in *Hemerocalis cerulea.*

461, HYPOXIS *pilosa* Raf. erecta L. carolin. Mx.—N. Amer. many var. parviflora, graminif. angustif. latif. decumbens, striata, multiflora (5 to 9 fl.) uniflora &c.

462, *Hypoxis filifolia* Elliot—Carol. †

463, AMBLOSTIMA Raf. fl. tel. 66. charact. emend. (aff. Skilla) cal. persist. colorato, sepalis 6 eq. uninervis, stam. 6 eq. ad basis, filam. filif. subulatis acutis basi incrassatis, antheris obl. ovar. basi subconcreto, stylo teres vel subconico, stigma integrum obt. caps. 3loc. oligosp. sem. subglobosis nitidis. *Bulbosa, scaposa, fol. striatis racemo bract.*—This G. will probably include the American Skillas except those with a triple stigma, see Oxytria fl. tel. 65.

Amblost. albiflora Raf. ut supra, Ornithog. croceum Elliot. fol. gramineis longissimis angustis striato nervosis, scapo longior tereto luteo, racemo oblongo 20-30fl. bract. brevis ovatis obt. sepalis ovatobl. obt. stam. subeq.—I have reformed the character out of a specimen from Elliot himself, the P*halangium croceum* of Mx doubtful refered to it. is a different sp. and the plant of same name of Nuttal is of a different G. my *Oxytria* 65. This has leaves sesquipedal 2 lines broad, scape bipedal yellow, fl. small whitish Georgia.

464, A*mblost. latifolia* Raf. fol. elong. lato linearib. obt. striatis scapo subeq. fuscato tereto, racemo ovato 20-40fl. bract. lanceol. acutis ped. subeq. sepalis lato lanceol. acutis ad stam. longior—Florida, Alab. fine plant, leaves pedal, half inch wide, fl. larger of a dirty yellowish or fulvous color. Still more remote from Michaux's plant.

465, Nemostylis *celestina* Nut. Ixia do Bartr. Alab. ad Arkanzas. lovely and rare plant.

466, Tripterella *cerulea* Mx. Burmannia biflora L—Florida.

467, *Tripter. capitata* Mx. Burm. do L.—Florida.

468, Nemitis *setacea* Raf. fl. tel. 893. Apteria do Nut.—Alab. Florida.

469, CRINUM *americanum* L. O—Louisiana.
470, ZIGADENUS *glaberrimus* Mx—Alabama.
471, ENNEARINA *pleiana* Raf. Pleea tenuif. Mx. O.—Carol. singular Genus by 9 stamens whence my name, *Pleea* like *Leea* are bad, Plee was no botanist, very rare.
472, NARTHECIUM *americanum* Ker.—Nova Cesarea, G. very distinct by wooly stamens as Anthericum.
473, *Narth. ossifragum* O—Eur. borealis.
474, ABAMA *scabra* Raf. new fl. p. 35. Tofielda pubens El. &c—Carol. Alab. G. of Adanson.
475, *Abama pubens* Raf. ut supra. Tofielda do Nut—Virginia.
476, TOFIELDA *capitata* Raf. scaposa, fol. linearib. acutis, brevis nervosis glabris, scapo tereto nudo vel unifoliato, fl. capitatis minutis subsess. petalis obl. obt.—Labrador, annual, leaves uncial, scape 3 to 4 inches, flowers white very smaH about 6, hardly any bract, capsules gibbose with a minute reflexed style. †
477, SCHOLLERA *graminif.* Schr. W. Leptanthus schollera Mx. &c—Pensylv. Ohio.
478, ABBOTIA *filiformis* Raf. n. fl. 36, Triglochin triandrum Mx. &c Ohio to Florida.
479, A*bb. palustris* R. n. fl. 37. Trigl. do L. O—Lake Erie.
480, A*bb. pumila* R. n. fl. 37. Trigl. barrelieri Loiseleur—Canada, Gallia.
481. SISYRINCHIUM *flexuosum* Raf. caule dichot. flexuoso anceps, fol. brevis ensatis acutis vix nervosis, spathis lanc. diphylis ineq. fl. subeq. 3-4fl. capsulis ovoideis truncatis torulosis—Arkanzas and Texas, semipedal, leaves 1 or 2 inches, specimens in fruit only.
482, *Sisyr. tenuifolium* Raf. caulib. cespito-

sis genicul. filif. 2ang. fol. tenuis angustissimis elong. lin. filif. acutis, spathis 2valvis subeq. lanceol. fl. brevior 2-3fl. petalis obt. cuspid. capsulis globosis—Arkanzas and Texas, annual, semipedal, leaves 2-4 inches long very slender, fl. blue, larger than in S. anceps.

483, *Sisyr. floridanum* Raf. Scaposúm, fol. lin. lanc. acutis vix nervosis, scapis fol. subeq. lato bialatis, spathis ineq. bivalvis lanc. 2-4floris equante. petalis retusis cuspidatis, caps. obovatis—Florida, found by Baldwin, 4 to 6 inches high, annual leaves 2-4inches, one line broad, flowers large white.

484, *Sisyr. niveum* Raf. scaposum, fol. lin. angustis striatis nervosis acutis, scapis fol. longior bialatis, alis striatis, spathis sepe coloratis 3valvis, 2int. brevis subeq. 1 ext. longissima lanc. plicata, 6-8floris. petalis retusis cuspid. capsulis globosis—Alab. Kentucky &c, 6 to 8 inches high, leaves 3 to 5, half line wide, flowers size of S. anceps, snowy white, spathas more or less colored of red.

485, Convallaria *parviflora* Raf. fol. binis sessilib. angustis obl. acutis, scapo filif. fol. brevior racemis 3-5floris, bracteis scariosis brevis, fl. vix secundis parvis—Apalachian and Wasioto Mts. leaves and fl. half size of C. majalis, 3 to 6 inches high, &c.

486, *Conval. montana* Raf. (pseudlo-majalis Bartr. in Rees cycl. Am. ed.) fol. binis sessilib. ovatobl. acum. scapo angul. fol. subeq. racemo 10-12floris, bract. lanc. ad ped. eq. fl. secundis —Unaka and Cherokis Mts. large plant, leaves 6 fo 8 inches long, 2 wide, fl. size of C. majalis, Bartram says the berries are blue and ovate. C. majalis has leaves petiolate elliptic acute at

both ends, raceme of 7-8 fl. bracts half length of pedicels. †

These 3 plants are the types of the true G. *Convallaria*, this protean linnean G. was emended by me in 1815, also in medical fl. and in fl. Telur. divided in 8 Genera, *Vagnera*, *Styrandra*, *Flugea*, *Sigillaria*, *Globbris*, *Clintonia*, *Siphyalis*, to which I now add 2 others.

487, CODOMALE Raf. (bell axil.) diff. fl. artic. ad pedunc. campanulata profunde 6fida, lac. obl. 3 internis latiorib, stam. brevis ad basis insertis, antheris ovatis subsess. *fol. alt. secundis, fl. axil. secundis*—very distinct G. with habit of Sigillaria and flowers nearly as in last, but not so open, base acute.

Codomale *purpurascens* Raf. Conval. grandifl. Hort. caule angul. contortus, fol. secundis sessil. obl. ellipt. obtusis, pedunc. unifl. nutans—Sibiria, beautiful plant, pedal, leaves 3 inches, flowers large nearly uncial purplish.

488, TROXILANTHES Raf. (wheel leav. fl.) diff. fl. urceolatis 6dentatis deinde lageniformis, dentib. barbatis, stam. ad apice tubo, stylo brevis. *fol. et fl. verticillatis*—habit so peculiar as to indicate a G. fl. also different from Sigillaria.

Troxilanthes *angustif.* Raf. caule simplex sulcato, fol. rotatis 3-7 lin. lanceol. obt. fl. axil. vert. pedic. sepe bifloris nutans—Belgia &c. There appears to be 2 other sp. in North Europe blended in *Convallaria verticillata*—2 *Tr. lanceolata* with broader lanc. acute leaves —3 *Tr. ramosa* with branches &c.

489, Sigillaria *hirta* Raf. Conv. do Bosc. Lam. Sm. &c pubescens W.—Mts. Alleghanies. If the fossil Sigillaria is not changed to *Sigilli-*

tes this G. must then become *Axillaria* Raf. see fl. T. 831.

490, *Sigil. canaliculata* Raf. Conv. do W. &c —Mts. Allegh.

491, *Sigil. biflora* Raf. caule flexuoso compresso contorto, fol. distichis lanceol. obt. semiamplex. glabris, pedunc. bifloris nutans—Pennsylv. Kentucky, pedal, leaves biuncial, fl. white small.

492, *Sigil. angustif.* Raf. caule flexuoso angul. sulcato, fol. sessilib. elongatis angustis lin. lanceol, obt. glabris, distichis, pedunc. unifl.—Alabama, pedal, leaves 3 inches long, only 3 lines broad. †

493, *Sigil. elliptica* Raf. caule basi teres, apice angul. flexuoso, fol. distichis sessil. ellipt. vel ovatobl. obtuse acum. subtus nervis scabris, pedunc. sepe unifl.—Allegh. Mts. pedal, leaves biuncial, fl. small white.

494, VAGNERA Ad. Smilacina Desf. bad and posterior name.

VAGNERA *angustif.* Raf. caule angul. recto, fol. sessilib. lanceol. obt. racemo simplex 3-10floris—Novanglia ad Canada. Smaller than *V. stellata*, semidedal, leaves longer and narrower, 2 or 3 inches long, found at Niagara.

495, *Vagnera retusa* Raf. caule flexuoso angul. fol. sessilib. ellipt. obt. retusis glabriusculis, racemo paucifl. fasciculis alt. 3-5floris, ped. brevis—Allegh. Mts. found only once and in fruit, semipedal, leaves 2 inches long, one broad, 3 nerves stronger, berries dark purple. †

496, STYRANDRA *petiolaris* Raf. Conv. bifolia L. O.—caule bifolio, fol. petiolatis, cordatis acutis, basi dilat. renif. fl. racemosis fasciculatis —Europa et Sibiria.

497, *Styrandra amplexicaulis* Raf. Conv.

bifolia amer. O. fol. radic. cordatis, caule bifolio, fol. sess. amplex. ovatobl. acutis, basi subcord. fl. racemosis sepe geminatis---Canada and Mts. Allegh. smaller than last, blended with it, altho' very distinct.

498, PELTANDRA *undulata* Raf. new fl. I p. 87—Allegh. Mts. &c. In my monograph I have shown that this and the 2 next sp. were mingled in *Arum virginicum*, and given a monograph of 8 sp. my G. of 1819 is the Lecontea of Torrey 1821 and Renselaeria of Beck. 1833.

499, P*elt. latifolia* Raf. ut supra—Nova Cesarea.

500, P*elt. heterophyla* Raf. p. 88—Pensylv. Nov. Cesarea &c.

This Century includes 20 N. G. whereof 7 now first described, with 36 N. sp. now described.

Therefore this first part or series of the AUTIKON includes in 5 Centuries, the illustrations of 112 New Genera of mine, with the descriptions of 38 hitherto undescribed. Also the descriptions and figures of 132 New species, with the illustrations of twice as many described elsewhere. It is likewise replete with new facts, remarks, observations, notes, criticisms, localties &c, forming a vast mass of novelties and improvements.

Corrections. I had a previous *Stelmanis* in fl. tel. 166, therefore read *Anistelma* instead of it at article 89.

Even if *Macuillamia* 332 should be the real type of *Herpestis* this name is identic with *Herpestes* in Zoology previous I beliéve; but *Monniera* and *Habershamia* are distinct. I have them all.

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OLD GENERA ILLUSTRATED.

Synonyms in Italics.

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In Cent. ii.—Calymenia, Adoxa, Decumaria. Polygonum, Erigenia, Peltaria, Polypremum, Arenaria, Honkenya, Dianthus, Silene, Chlonanthes, Hemitomus, *Linaria*, Peloria, Clavtonia, Hottonia, Mikania, Margyrocarpus, Balduina, Marshallia, Panax, Ansonia, Lyonsia, Anantherix.

In Cent. iii.—Cucubalus, *Silene*, Gypsophila, Saponaria, Agrostema, Lychnis, Dianthera, Elytraria, *Justica*, Ruellia, Hygrophila, Sarazina, Hydrola, *Jussiena*, Ludwigia, Isnardia, Amma nia, Campanula.

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SECOND PART,—CENTURIES VI to X.

BY C. S. RAFINESQUE, Prof.

Philadelphia—1815 *to* 1840.

CENTURIA VI.

ARB. ET FRUT.—TREES AND SHRUBS.

501, LOMAKE Raf. (bordered top) calix gracilis tubul. 4gonus 4dentat. dentib. ineq. subul. corolla infundib. tubo filif. limbo ineq. 4lobo, stam. 2? fruct. clavato in cal. inclus. et eq. apice 4lobo, partibilis in sem. 2 lin. semiteres, intus planis 3costatis, apice arillatis, arillo magno emarg. convexo-plano, intus decurrens. *Frutex, fol. opp: spicis termin,*—Fine G. near *Tarpheta* see fl. tel. 391, but habit more of *Verbena* in the spikes.

LOMAKE *brachiata* Raf. ramis brachiatis 4sulcatis obtuse 4gonis, fol. petiolatis ovato subrot. acutis grandiserratis, spicis pedunc. gracilis term. fl. adpressis bract. subul, cal. brevior —Shrub of Cuba, leaves remote small nearly smooth, spikes 2 or 3 inches slender, flowers incarnate? seeds very peculiar with a thick large terminal arilla obtuse and notched.

502, SCLEROZUS *tenax* Raf. sylv. tel. 163 sub nom Scleroclad̃us. This rare tree has been put into 3 G. by turns Sideroxylum, Bumelia

and Chrysophylum,—Sclerozus means hard branches, they are brown rugose, leaves petiolate cuneate acute or obtuse, reticulate above, glaucous silky hairy beneath: flowers fasciculate on long peduncles, calix camp. rufous, 5 lobes obt. unequal, corolla rather longer. My specimens are inerme, from Florida.

503, BUMELIA *undulata* Raf. new flora 545—Cuba and South Florida.

504, *Bum. arachnoidea* R. n. fl. 546—Arkanzas. †

505, *Bum. rufa* Raf. ramis fusco rufis villosis, fol. subsessil. ellipt. obt. undul. margine revol. supra glaucescens subtus rufis villosis reticulatis; flor. glomeratis densis rufis—Florida, disc. by Ware, I made it a var. of *B. lanuginosa* in new flora, but it appears peculiar. †

506, *Bum* ? *serrulata* R. n. fl. 548—Alabama, a doubtful shrub, since flowers lacking: there are many such in Florida and Alabama, even when flowers known, as the 3 next till 509.

507, *Bum*? *denticulata* R. n. fl. 547, certainly no Bumelia, I was deceived by Collins label; he and I have destroyed all the flowers except 2 to analyze this singular tree, which I compared with *Nyssa denticulata* and *Schizandra*, both akin in leaves, but not in flowers. It is nearer to my G. *Lomilis*, but I have fixt it protem as follows.

STREBLINA Raf. (ambiguity) dioical, fl. masc . . . fem. calix 5part. lac. ineq. subrot. obtusis undul. petalis 5 ellipt. obt. undul. subeq. calix brevior, pistilum minimum in apex pedunculo immerso,stigma obt. sessil. fruct . . . drupa 1sp ?—Thus it differs from *Nyssa* by petals, unequal calix &c, from *Schizandra* by many peculiarities, and yet it may be of same family or

another link with *Fothergilla, Hamamelis &c* —STREBLINA *denticulata* Raf. fol. petiol. ovatis obovatisque glabris,venis reticulatis, basi acutis, apice sepe acum. margine parce dentatis, pedunc. filif. unifl. extraxil. petiolis equante—Florida, leaves very thin biuncial, flowers 3 times as large as in *Nyssa*, incarnate.

508, LOMILIS *ciliata* Raf. alsogr. 1, 2. Compare with last and with next, certainly neither like Nyssa nor Schizandra.

509, FORRESTIERA? *glauca* Raf. ramulis fuscatis rugosis, fol. subsessilib. obovat. acut. integris ciliolatis glabris, subtus glaucis. drupis sessilib. ovatis acutis levis—Alabama. I thought I had another sp. of *Lomilis*, but it agrees in nothing but the ciliolate leaves, and the fruit is as in Forrestiera, but I have not the flowers: akin also to *For. distichu*, and it may form another G. with it when flowers known. Leaves very thin 1 or 2 inches long, fruit small. †

510, TATINA Raf. (bot) monoical, fl. masc. cal. camp. 4-5gonus, 4-5fidus, acutus, corolla brevis equante camp. 4-5fida, stam. 4-5 ad cor. opposita? fl. fem. cal. 4part. deciduus, ovar. globoso stig. sess. capit. umbilic. sepe bilob. drupa globosa, nucleus rugosus bisulcato, 2loc. 2sperm. *Frutex inermis. fol. alt. fl. axil. sepe fascic*—another G. akin to Bumelia, but if the stamens alternate with corolla, it rather belongs to Ilexides, and is akin to Ageria.

TATINA *parviflora* Raf. ramulis teretis cinereis parce granulatis, fol. petiol. oblongis vel cuneatis, apice acutis vel obt. integris vel erosis, subtus nervis pubens, juniorib. villosis, fl. fascic. axil. petiolis brevior, drupis subsolit. pedunc. pisiformis—discovered by Dr. Hart near Natchez in 1820, since obtained also from Ar-

kanzas, mistaken then for the *Bumelia lanuginosa*, altho' so unlike *B. rufa*. Leaves biuncial, the young quite villose fuscate beneath, flowers minute shut up in ovate acute form, brown on unequal peduncles, fruit fuscate.

511, Decateles *lycioides* Raf. sylv. tel. 167 Bumelia do Authors—Florida to Louisiana, the leaves are seldom lanceolate, but rather oblong, uncial reticulate on both sides, apparently evergreen: the fruit is very peculiar, green, size of a Cherry, compressed smooth on both sides, but edge broad with 3 circular ridges united by transvere wrinkles; the calix is persistent patent,with 5 unequal parts ovate obtuse, style short acute. It is a shrub 4 to 8 feet high, branches rugose or verrucose, spines conical valid, flowers vernal.

512. Populus *bicolor* R. als. 179. Allegh. Mts.

513, *Pop. cinerea* R. als. 180. Allegh. Mts.

514, *Pop. ciliolata* R. als. 183. Ohio.

515, *Pop. reticulata* R. als. 184. Apal. Mts.

516, Amerina *balduiniana* Raf. als. 54. Florida.

517. *Amer. missurica* R. als. 55. Missouri.

518, Oisodix *fulva* R. als. 56. Origon.

519, *Ois. oblongifolia* R. als. 57 Maine.

520, Vetrix (Stenalix) *linearifolia* R. als. 58. Missouri.

521, Salix *repanda* R. als. 59. Florida. †

522, Usionis *humilis* R. als. 60. Allegh. Mts. These since 516 are new Willows, described in my Grove of 330 trees.

523, Asimina *parviflora* Dunal. Florida. This G. after being shuffled into Annona, Porcelia, Orchidocarpum, altho' settled by Adanson 75 years ago! has been sunk by Torrey

into Uvaria to increase useless synonyms. †

521, ASIMINA *pygmea* Dunal. Florida. †

525, *Asimina angustifolia* Raf. ramulis rugosis angulatis fuscatis, fol. sessilib. longissimis angustis lineari-lanceol. acutis, margine revolutis, utrinque nervoso reticulatis—South Florida, found in Collins herb. labelled Glyptomenes and Porcelia pygmea, very unlike this last with cuneate obtuse broad leaves. This has them 4 inches long, only 1 fourth of inch wide. †

526, *Asimina triloba* Dunal. Annona do L. Shrub, Pens. Virg.

527, *Asim. arborea* Raf. Annona glabra L. large tree 15 to 30 feet high, Ohio to Louisiana. I have shown in my Atlantic Journal page 200, the mistake committed by all Botanists except Linneus, in blending this large tree of the west, with the last shrub of the East: they differ in leaves, flowers and fruits. Torrey has copied the blunder of course and unnoticed my correction of 1833.

528, MAGNOLIA *macrophyla* MX. Raf. med. fl. tab. 62. This rare tree is found in few localities, some of them discovered by myself in 1823 in East Kentucky, are omitted by Torrey, altho' published in 1830.

529, *Magn. fraseri* Walt. auriculata of others. Allegh. Mts.

530, *Magn. cordata* Mx. East Florida, Kin!

531, *Magn. glauca* L. New Jersey, leaves elliptic obt.

532, *Magn. glauca* var. *longifolia* Pursh. M. fragrans Raf. fl. lud. 301. Arborea, fol. obl. lanc. angustis, vix obtusis, basi acutis, &c—Louisiana &c, perhaps a sp. leaves evergreen 4 to 6 inches long, one wide, flowers very fragrant as in last. Omitted by Torrey.

533, *Magn. grandiflora* L. Florida, Louis. leaves elliptic, base acute, hardly reticulate, undulate, 4 to 6 inches long.

534, *Magn. lacunosa* Raf. fol. amplis planis oblongis basi acutis, apice obt. utrinque latere glabris lucidis nervosis lacunoso reticulatis.—Florida, the real holy tree of the Seminoles, leaves 8 to 10 inches long, 3 or 4 in the middle. Is it a var. of last?

535, *Magn. ferruginea* Collins (vel rotundif.) fol. subrotundis, basi et apice obtusis, supra lucidis vix reticul. subtus arcte tomentosis ferrugineis, margine cartilagineis subundul—Alabama? certainly totally unlike the last, and also from *M. grandifl.* leaves smaller on longer petiols, 2 or 3 inches long and broad, densely wooly beneath: found by Kin. †

536, CLADRASTIS *tinctoria* Raf. (or albiflora) 1825,new fl. 700,—Virgilia lutea Mx, and all authors, quite a peculiar G.—Kentucky to Alabama, flowers white not yellow as stated by Nuttal, who never saw them, vernal fragrant.

537, ZANTHYRSIS *paniculata* Raf. n. fl. 702. Cuba, Florida, mistaken for the Virgilia aurea of Abyssinia by some.

538, KONXIKAS Raf. cal. urceol. gibbosus subbilab. 5dent. ineq. cor. papil. vexillum deflexum, dilat. alae. subeq. obov. carina bipartibilis, stam. 10 monadelphis ineq. ovar. compr. stylo horizontalis lato plano glabro, stigma obt. Leg .... *Scandens fol. pinnatis alt. stipulatis, fl. racem. 2bract,*—Apparently a N. G. near *Lathyrus* and *Clitoria*, sent to Collins by a German Botanist for our *Cercis canadensis*! the name was the Greek one of Cercis.

KONXIKAS *acuminatum* Raf. scandens, folio-

lis 7-9 sessilib. alt ovatis acum. glabris integris, stipulis dimidiatis, racemis axil. paucifl. bracteis linearib.—Leaves thin uncial flowers bluish middle size, stamens white. Sibiria?

539, Robinia *viscosa* Vent--Apal. Mts.

540, *Rob. hispida* L. Apal. Mts.

541, Caragana *arborescens* Lam. Robinia caragana L. O.—Sibiria.

542, C*arag. spinosa* Lam. Robinia do O.—China, Sibiria.

543, Colutea orientalis L.—Italia, Grecia.

544, *Col. pococki* O—Syria.

545, *Col. frutescens* L.—South Africa.

546, Anthylis *barbajovis* L.—Hisp.

547, *Anth. cytisoides* L. O—Hisp.

548, Emerus *major* Mill. Mench. Coronilla. emorus L. &c.—Gallia H. Sicilia.

549, Coronilla *glauca* L.—Gallia mer.

550, *Coron. rosea* Raf. herbacea? caule angul. fol. multijugis, foliolis petiol. obl. linearib. mucronatis, pedunc. fol. eq. umbellis multifloris —Persia, very pretty sp. leaves with 15 to 21 small folioles, flowers large rosate.

551, *Amorpha macrophyla* Raf. petiolis sulcatis, foliolis 18-20 oppos. stipulatis subsess. glabris latoblongis, utrinque acutis cuspidatis concolor—Florida, leaves very large 10 inches long, folioles 2 inches not dotted, near to A. paniculata T. but smooth and folioles with stipules, hardly any petiol, not punctate nor obtuse. †

552, *Amorpha discolor* Raf. petiolis semiteres, foliolis 22-25 suboppos. petiol. stipul. glabris perforatis, obl. ligulatis angustis, utrinque obt. cuspid. subtus glaucis—Alabama, another sp. with large leaves 6 to 8 inches long, folioles

nearly 2 inches, but narrow, perforated by glands as Hypericum.

553, *Am. glauca* Raf. petiolis semiteres, folioles 17-21 oppos. petiol. stipulatis puberulis glaucis opacis latoblongis utrinque acutis cuspidatis, ultima obovata; racemis obl. cal. glabris camp. dentib. brevis acutis subeq. stam. exertis—Missouri, leaves 3 or 4 inches long, folioles half inch: spikes dense short, stamens longer than corolla.

554, *Am. retusa* Raf. ramis sulcatis, petiolis trigonis, foliolis 11-15 oppos. subpetiol. exstipul. opacis. ovatobl. obt. retusis emarg. muticis concolor subtus tomentosis; ultima ovata; spicis obl. cal. acutidens—Apalachian Mts. large shrub, leaves 4 to 6 inches, folioles often uncial, flowers sessile.

555, *Am. flexuosa* Raf. glabra, ramulis flexuosis angul. petiolis trigonis, foliolis 9-15 subopp. petiol. exstipul. perforatis ellipticis obt. cuspid. subtus pallidis, ultima obovata: fl. racemosis, cal. acutis, legum. clavatis curvis glandulosis 1spermis—Unaka Mts. of Carolina, very distinct. folioles half inch long, peduncles often biflore as long as calix, pod 4 times longer, glands bright warty, seeds oblong.

556, *Am. verrucosa* Raf. fruticosa? L. O. (all are such) ramulis rectis subteres furfuraceis, petiolis subteres, foliolis sepe 15 opp. et alt. petiolis pubens, stipul. ovato ellipt. obt. vel acutis, infimis et ultimis ovatis, opacis subtus punctatis pallidis: fl. racemosis, cal. acutis, stam. exertis, legum. curvis verrucosis 1sp.—Alabama, leaves 6 inches long, folioles nearly uncial, pod like the last, but warts much larger—A. fruticosa of L. included all our sp. and is yet a doubtful shrub, I have seen 5 sp. under that name.

557, Am. *nana* Nut. Dec. T. microphyla Pursh, punctata Raf. n. fl. 507. humilis glabra ramis teretis, petiolis sub3quetris, foliolis 15-21 sessilib. opp. et alt. stipulatis, ellipt. basi acutis, apice obt. cuspid. perforatis punctatis, racemis subspic. curvis,cal. dentib. elongatis—Missouri, I describe again this pretty sp. from Bradbury specimens, as Torrey descr. is not good.

558, *Am. pubescens* Wild. P. E. pumila Mx. herbacea Walt. Tor. (not herbaceous)—Florida, stem frutic. angular above, folioles 30-50 subsess. subobliqual, elliptic obtuse callose, perforate stipulate, flowers sessile, spikes slender pubescent.

559, Am. *canescens* Nut. O. the description of Torrey blends 2 plants, which I have both in seed, with many things in common, but yet distinct; this has larger folioles elliptic obtuse mucronate almost smooth above, grey beneath but not tomentose petiols 3ang.—Illinois and Missouri.

560, Am. *tomentosa* Raf. tota tomentosa, petiolis semiteres, foliolis 40-50 subsess. lato lanceol. acutis cuspidatis, subtus canis exstipul. opacis; imbric. cal, acutis, leg. ovatis cal. subeq. —on Wabash and West Kentucky, folioles as small as in A. nana, realy lanceolate with a long cuspis.

561, Am. *colorata* Raf. (caroliniana ? Croom Tor.) glabra ramis angul. petiolis supra planis, foliolis 15-21 oppos. petiolis pubens stipulatis ellipt. basi acutis, apice obt. cuspid. perfor. subt. pallidis; fl. racem. cal. glabris bicolor, dentib. acutis pubens ut stylo—Apalachian Mts. leaves short, folioles half uncial. calix white,colored at both ends like petal.—I have thus ascertained a dozen sp. of this fine G. which is

the type of my natural family AMORPHIDES of 1815, including the next G. which I venture to separate. The other 3 sp. in Torrey (who has only 8, paniculata with californica and levigata of Nut. not seen by T.) are doubtful.

562. MONOSEMEION Raf. (alone flag) cal. campanul. 5fidus, lac. subeq. ellipt. obt. vexillum subrot. sessile plano integrum, brevis deciduum. Stam. 5 liberis filif. anth. obl. pistilum pedunc. obl. albo sericeo, stigma subsess. obliq. capitat. purpur. legum. obl. vill . . . . *fol. fascic. pinnatis, fl. spicatis*—Very singular G, by the peculiar single petal, stigma &c. I found it labelled A*morpha fruticosa* by Collins! I suspected it was the A*sacara* or Gleditsia monosperma, but this has no petal and a smooth flat pod.

MONOSEMEION *obliquatum* Raf. petiolis plano convexis, foliolis 11-21 alt. sessilib. obliq. ovatobl. obtusis muticis opacis concolor, glaucescens. petiolis nervisque pubens: spica brevis multifl.—leaves 4 to 6 inches long, folioles submucial, reticulate as in Amorpha, spike uncial. flowers yellowish very conspicuous, petal hardly longer than calix and stamens, North America? †

563. COTINUS *obovatus* Raf. ramis striatis, petiolis longis gracilis, fol. obov, basi acutis, apice rotundatis, paniculis sepe plumosis —Arkanzas, Louis. The G. Cotinus of Tourn. Ad. must be restored, as well as all the Genera blended in *Rhus*, and *Rh. cotinus* O. includes 3 or 4 species!

564, *Cotinus retusus* Raf. ramis rugosis et verrucosis, petiolis brevis angustis, fol. subrot. obovatis apice retusis, paniculis interdum plumosis—Asia, leaves and flowers small.

565, *Cotinas ellipticus* Raf. ramis striatis, petiolis brevis marginatis, fol. ellipt. utrinque obtusis, paniculis non plumosis.—Mts. of Tyrol, Carniolia, Sibiria and Origon? leaves larger than in others often triuncial, panicle of many large flowers, seldom plumose.

566, SUMACUS *copallina* Raf. Rhus do O. well known sp. to which Torrey has mixt 2 new ones, *S. montana* and *floridana*. This has twigs verrucose, few entire leaflets acuminate &c &c—New Jersey &c.

567, *Sumacus montana* Raf. differs by folioles unequaly serrate &c—Allegh. Mts.—The bad name of Rhus must be discarded, and we shall have instead Cotinus, Sumacus, Philostemon, Lobadium. Thezera, Metopium, Cominia, Festania, Malosma and *Lilithia* Raf. (10 stamens) all good genera, see my revision.

PHILOSTEMON Raf. fl. lud. p. 107. differs from *Sumacus* by flowers dioical, calix urceolate 5dent. petals reflexed, stigma one, fruit umbilicate (in all?) leaves ternate, 2 folioles sessile obliqual middle petiolate, fl. racemose not paniculate.

568, *Philostemon toxicodendron* R. Rhus do. L. O. frutescens pubens, ramulis teretis punctatis, foliolis ovatis obovatisque, subangulatis, acutis, petiolis longissimis striatis, drupis globosis glabris fuscatis—N. Amer. Torrey has blended 3 or 4 species with it as usual.

569, *Philast. radicans* R. Rhus do L. O. sepe scandens radicans glabrum, ramulis striatis, petiolis longis semiteres, foliolis ovatis acuminatis integris, drupis glabris fuscatis—now properly distinguished from last.

570, *Philost. lutescens* Raf. an Ph. radicans fl. lud. 354? scandens, ramis angulatis verruco-

sis, petiolis teretib. pubescens, foliolis ovatis acutis 2-5fidis, utrinque reticul. supra scabris, subtus villosis lutescens, drupis globosis villosis luteis—Florida to Louisiana, my specimen in fruit deeply umbilicate quite yellow very hairy; leaves firm and thick, a very large vine: for the Louisiana plant, see flora Lud. for a long account, but fruit not described there; very different from all.

571, FESTANIA Raf. (bot.) diff. Sumacus, cal. urceol. 5fidus,petalis minimis obl. obt. stam. 5 subsessil. fl. fem . . . *fol. ternatis, foliolis omnis sessilib. fl. panic*—at least a subg. leaves disposed as in Lobadium, flowers as in Sumacus.

Festania *nivea* Raf. (Rhus do. Coll. herb.) ramulis fuscatis angul. fol. brevi petiol. foliolis sess. ineq. oblongis acutis integris, supra reticulatis, subtus canis furfuraceis, nervis fulvis—Africa, leaves small, flowers very minute.

572, Lobadium Raf. N. G. 1819. Torrey has omitted *Myrica trifoliata* L. in the synonymes and has only one sp. (not aromatic) but there are 3 sp. or var. besides his new, my *Lob. trilobatum.*

Lobadium rupestre Raf. ramis subangul. punctatis, foliolis ovatis acutis grosse serratis, supra glabris subtus pubescens—Virginia, Kentucky, Carol. ad rupes.

573, *Lobad. fetidum* Raf. ramis teretib. foliolis ovatis obovatisque acutis grosse serratis supra scabris, subtus tomentosis fulvescens—Allegh. Mts. wood fetid, leaves scentless as in all.

574, *Lobad. rotundifolium* Raf, ramis teretib. foliolis subrot. sepe obtusis subintegris vel

crenato lobatis, utrinque glabris—Florida, Alabama, nearer to Lob. trilobatum of Origon.

575, CAMPHORA *vera* Raf. Sylv. tel. 858. ramulis fuscatis rugosis, fol. ovatis trinervatis, basi acutis, apice acum—Borneo, very rare, leaves not lucid nor glaucous, 1 or 2 inches long; double of petiol.

576, CAMPHORA *japonica* Raf. sylv. 859, ramulis apice angulatis, fol. lato lanceol, utrinque acum. trinervatis, supra pallidis lucidis, subtus glaucis—Japan, blended with last in *Laurus camphora*, branches fuscate or lutescent, leaves 3 to 5 inches long, triple of petiol canaliculate above, end commonly falcate.

577, EVELYNA *geniculata* Raf, sylv. ap. 50. Laurus do. G—Carol. ad Florida.

578, *Evelyna diospyros* Raf. Laurus do O. —Florida.

579, TAMALA *acuminata* Raf. sylv. tel. 869. —Louisiana.

580, *Tamala palustris* R. sylv. 868. fol. lanc. vel obl. vel cuneatis acutis, interdum repandis, ramulis petiolis nervisque villosis—Car. Florida, a shrub, leaves 4 to 6 inches long, peduncles 2-4flore. †

581, *Tamala ? serrulata* Raf. ramulis fuscatis rugosis glabris. fol. cuneatis acutis subsessilib. glabris, medio ad apice remote serrulatis —Florida, mixt with last, leaves 4 to 5 inches.†

582, *Tamala carolinensis* R. sylv. 867, Laurus do O. fol. ellipt. utrinque acutis, subtus glabriusculis—large tree.

583, OZANTHES *benzoin* Raf. sylv. 836. Laurus do O—N. America.

584. SASSAFRAS *triloba* Raf. Laurus sassafras O—N. Amér.

585, Var. *mollis* Raf. fol. sepe integris villo-

sis mollis, florib. laxis—Pennsylvania, smaller tree, fl. ochroleucous narrow.

586, *Sassafras albida* Raf. Laurus do Nut. Virg. Carol.

587, ILLICIUM *parviflorum* O—Florida, twigs terete rugose, leaves not reticulate.

588, *Illic. reticulatum* Raf. ramulis angulatis, fol, subpetiol. oblongis subcuneatis angustis acutis utrinque latere reticulatis—Florida, found by Kin, leaves evergreen pale beneath biuncial, one third inch broad, certainly not the I. floridanum with acuminate leaves. †

589, RHODODENDRON *catabiense* MX.—Unaka Mts. of Apalachians, very rare and local: twigs and petiols rugose, leaves fulvous beneath. †

590, *Rhod. punctatum* Vent.—Unaka Mts. twigs rugose.

591, *Rhod. maximnm* O. var. *albiflorum* R.--Allegh. Mts.

582, Var. *fulva* R. fol. subtus fulvo-rufis—Allegh.

593, *Rhod. ponticum* L.—Natolia.

594, *Rhod. ferrugineum* L.—Alps, Sibiria.

595, *Rhod. hirsutum* L.—Alps.

596, *Rhod. chamecistus* L—Austrian Alps.

597, KALMIA *ferruginea* Raf. ramulis teretis, fol. sepe ternis petiol. obl. lanceol. acutis subtus ferrugineis glabris; fl. verticill. pedunc. pubens, calicib. glabris—Alleghany Mts. one of the sp. blended in K. angustifolia by many, which differs by larger leaves elliptic obtuse glaucous beneath. This is a small shrub bipedal, leaves uncial, flowers rose color.

598, *Kalmia lanceolata* Raf. ramulis teretis, fol. sepe ternis subsessilib. lanceol. acutis mar-

gine revolutis, subtus fulvis glabris, corymbis densifloris sepe terminalib. pedunc. calicibusque glabris—South New Jersey discovered 1802, still more unlike the *K. angustif.* (elliptica Raf.) small shrub sesquipedal leaves hardly uncial, flowers red. Is it not the *K. rosmarinifolia* of some?

599, *Kalmia glauca* Ait. O.—Labrador, Canada, Saranac Mts. New England.

600, *Kalmia hirsuta* Mx. O—Carolina.

This 6th Century contains 23 New Genera, whereof 6 now first described, 40 new species of trees and shrubs, whereof 28 now first described and figured.

CENTURIA VII.

601, SALIUNCA Raf. calix adherens oblongo striato integer. edentulo, corolla brevis campan. patens 4loba subeq. stam. 2? brevis stylo elongato, stigma bilob. akena obl. 2sperma? *fol. oppos. integris, fl. cymosis bracteatis*—another N. G. of family VALERIANIDES, near to *Fedia and Mouffetta* of Necker, the name is of Plinius.

SALIUNCA *plantaginea* Raf. fol. radic. petiol. oblongis obt. trinervis basi acutis, caule subnudo, fol. linearib. obt. remotis, cymis dichotomis glomeratis, bracteis oppos. ineq. scariosis obl. obt.—Carpathian or Caucasian Mts. small plant, annual? 6 to 8 inches high, radical leaves large erect, on stem very small, flowers small red. It must not be blended with *Val. saliunca* Allioni or *fragrans* with a ringent infund. rolla, and pappose seed. †

602. FEDIA *hemiodes* Raf. new fl. 907 chenopodea? Nut.—Arkanzas; this G. of Adan-

son and Gaertner, not of Decandole, has naked seeds like the last, but corolla infundibuliform.

603, *Fedia ligulata* R. n. fl. 908—Louisiana.

604, *Fedia ciliolata* R. n. fl 909—Kentuky.

605, Var. *ternifolia* ditto—Kentucky.

606, *Fedia radiata* O.—North America.

607, ODONTOCARPA Necker, Valerianella Dec. differs from *Fedia* by toothed fruit wrongly blended with last by many *Od. olitoria* Raf. Fedia do auct. vel Valeriana locusta L.—Europa.

608, *Od. coronata* R. Fedia et Val. do O—Lusitania. †

609, *Od. dentata* R. Fedia, Val. do O—Anglia. †

610, FUISA. Raf. (Phu eq.) diff. *Fedia*, corolla equalis 4fida, stam. 4 equalis, semina paleatis.

FUISA *rupestris* Raf. Val. do Pallas, sibirica Gm. W. Fedia do &c—Sibiria. V. ruthenica and villosa also belong to this G. this last has stigma cyathiform.

611, MITROPHORA Necker (Fedia Dec.) diff. *Fedia*, corolla bilabiata, stam. 2, sem. bidentata &c—*M. cornucopia* R. Valer. do L. Sicilia, Armenia.

612, KENTRANTHUS Necker, Dec. distinguished by spur to corolla and one stamen—K. ruber Dec. Val. rubra L—Asia, Africa, Europa.

613, RITTERA Raf. (bot) diff. Valeriana, stamen unicum, *fl. panic. trichot.*—*R. calcitrapa* Raf. Val. do O. Europa. If Ritter has a Genus substitute *Monastes* Raf.

614, VALERIANA *pauciflora* Mx---Ohio ad Louisiana.

615, *Val. officinalis* L.---Europa sylvis.

616, *Val. dioica* L.---Eur. paludosis, Subg. *Fraxula.*

617, *Val. montana* L.—Alpis.

618, *Val. elongata* Jaq.—Carinthia. †

619, *Val. celtica* L—Alpib. summis. †

620, *Val. gracilis* Raf. caule fistuloso teres ramoso gracilis, fol. pinnatis, foliolis linearib. obtusis, cymis trifidis, bracteis longis subul. membranosis, florib. fastigiatis—Sibiria, found as V. *alpina* (no such name) in Collins herb. branches slender naked flowers red.

There are other G. included in this fine family once a Genus! *Mouffetia* of Necker is based on *Val. supina.* my G. *Oncosina* on *Val. vesicaria* with fruit globose inflate 6aristate, my G. *Oncolon* on *Val. echinata* with cor. regular infund. 3 stigmas, fruit linear unequaly 3dentate, Other G. exist in the Peruvian sp. besides *Phylactis* of Persoon, and my *Amplophus* based on V. *scandens* with corol tubular 5dentate.

621, Scabiosa Necker non L. Raf. fl. tel. 1084. This large Linnean G. has been rectified by myself in flora tel. and divided in 16 Genera, perfectly distinct, Scabiosa, Astrocephalus, Pterocephalus, Succisa, Cephalaria, Euptilia, Plesiopsora, Tereiphas, Xetola, Lomelosia, Leucopsora, Sixalix, Gonokeros, Pentena, Tremastelma and Thlasidia—Type *Sc. columbaria* L. Europa.

622, *Scab. graminifolia* L.—Alpis.

623, *Scab. cretica* L—Sicilia &c.

624, *Scab. atropurpurea* L—Asia.

625, Succisa *vulgaris* Raf. fl. tel. 1037, Scab. succisa O—Europa.

626, *Succisa integrifolia* Raf. Scab. do O—Helvetia, Bavaria &c.

627, *Succisa arvensis* R. Scab. do O—Europa.

628, *Succisa bidentata* Raf. scabra, caule subnudo apice angulato paucifloro, fol. subradicalib. glaucis latoblongis acutis integris vel basi bidentatis, caulinis 2 lanceol. pedunculis brevis, fl. globosis, perianthis 8-10part. ovatobl. acutis —Hispania, perennial, pedal, leaves uncial, flowers small. †

629, *Succisa lancifolia* Raf. Scab. australis Wulfen. fol. lanceolatis acutis integris scabris, sessilib. flor. ovatis depressis, perianthis lanceol. subdent.—Styria, Istria, leaves 4 inches long, flowers pale incarnate.

630, ASTROCEPHALUS *pumilus* Raf. pumilus uniflorus glaber. fol. petiol. oblongis crenatis basi attenuatis, superis pinnatifidis. pinnulis infimis angustis integris, floribus planis radiatis, perianthis 12part. linearib. ineq.—Sicilia ad Montes Mt. Etna. Small annual plant 4 to 6 inches high, leaves proximate in middle of stem, biuncial, peduncle naked, flowers white, corols quite radiate unequal, seeds aristate.

631, PENTENA *ochroleuca* Raf. fl. tel. 1097 Scab. do O—Germania.

632, *Pentena banatica* Raf. Scab. do Waldst. W. P.—Hungaria. †

EUPHORBIA of Linneus, a group of 200 species revised and divided (in my flora tellur. and new flora') into 25 geod Genera, Euphorbia, Athymalus, Forsasadis, Dactylanthes, Tirucalia, Lacanthis, Adenorima, Pleuradena, Desmonema, Lepadena, Kanopikon, Aklema, Tumalis, Vallaris, Xamesike, Aplarina, Zalitea, Tithymalis, Keraselma, Murtekias, Nisomenes, Lophobios, Agaloma, Pedilanthus, Cyathophora, besides some subgenera. and I shall add

2 others here Kobiosis and Dematra. As far as 698 the species will be all Euphorbias of authors, 65 sp. in 12 G.

633, TITHYMALIS *cinerea* Raf. pilosa cinerea fol. sparsis sessil, ellipt. retusis integris; umbellis 5fidis, invol. 5 fol. similis, involuc. 2 similis, caps. papillosis—Styria, Bavaria: pedal simple,of subg. Xarakias, like the next 3,sent me both as Euph. epithymoides and ciparissias, but quite unlike either.

634, *Tithym. epithymoides* Jaq. &c---Austria, Bavaria, differs by color green, leaves lanceol. or oblong, obtuse and acute, involucres ovate not entire &c.

635, *Tithym. dulcis* Raf. Euph. O.---Germania.

636, *Tithym. characias* R. Euph. O---Sicilia ad Anglia.

637, *Tithym. mucronata* R. pubescens, fol. sparsis oblongis elongatis pendulis mucronatis integris; umbella 6fida trifida, amplissima, involucelis ovatobl. capsulis pubescens---Sicilia, Creta, large plant 3pedal, leaves triuncial narrow, flowers red few concealed in the ample umbel: near T. pubescens and platiphylos.

638, *Tithym. platiphylos* R. Euph. O---Europa. †

639, *Tithym. amygdaloides* R. Euph. O---Hispania, Italia &c.

640, *Tithym. verrucosa* R. var. *glabra*, diff. caule erecto angulato fol. glabris integris--Bavaria, an sp? *Tith. bavaricus.*

641, *Tithym. floridana* Raf. glabra, caule fistuloso, fol. remotis sessil. obl. ligulatis apice serrulatis obtusis, umbella trifida dichotoma, invol. 3 similis, involucelis 2 ovatis, capsulis scabris---Florida and Georgia, found by Dr. Bald-

win, mistaken for E. helioscopia by Muhlenberg and Elliot, but quite unlike. Pedall, eaves uncial narrow, flowers very small 4lobe.

642, T*ithym. helioscopia* R. Euph. O---Europa, it has leaves cuneate acute serrulate, umbel 5fid, capsules smooth.

643, T*ithym. palustris* R. Euph. O---Europa.

644, T*ithym. obovata* Raf. (E. helioscopia nonnulis non L.) fol. obovatis serratis obtusis glabris, inferis petiolatis, umbella 5fida 3fida, invol. 5-3 conformis, capsulis glabris---Novanglia ad Kentuky, Anglia ad Sicilia &c annual pedal, leaves exactly like E. peplus, but larger and serrate, umbel not trifid. It appears to be deemed E. *helioscopia* both in America and Europe, altho' quite distinct from it by leaves neither narrow nor acute.

645, *Tithym. paralias* R.---Europa maritimis.

646, *Tithym. saxatilis* R.---Styria, Illyria.

647, T*ithym. apios* R.---Creta, tuberosa pilosa fol. oblongis, rara. †.

648, T*ithym. cristata* Raf. Euph. cornuta L.---Egypt invol. cristato dentatis non cornutis.

649, T*ithym. calendula* R. Euph. do Delile ---Egypt.

650, T*ithym. connata* Raf. pumila pubescens, fol. sess. obl. vel cuneatis acutis integris; umbellis dichotomis, invol. subrot. obt. sepe connatis---Syria, sent me as *E. aleppica*, which has setaceous leaves, apparently new, but the specimen is imperfect †

651, KERASELMA *exigua* R. Euph. O.---Europa, fol. lin. lanc. acutis cuspidatis. For this G. of Necker see fl. tel. 1184.

652, *Keras. retusa* R. Euph. O.---Hisp. Gallia, fol. cuneat. linearib. retusis. Sent me by 2 botanists as Exigua.

653, *Keras. esula* R. var. *pauciflora* Raf. differens umb. 4-5fida paucifl. involuc. flabellatis---Bavaria.

654, *Keras. virgata* R. Euph. do Waldstein ---Hungaria, near to R. esula, larger, flowers thyrsoidal below the multifid umbel. flowers bicorne.

655, *Keras. cyparisias* R. Euph. O---Europa.

656. *Keras. echinocarpa* R. Euph. Sieber---Creta &c fol. ovatobl. acutis serrulatis, umb. 5fidis caps. echinatis---perhaps a Tithymalis subg. Pythiusa, lobes of perianthe lunulate.

657, *Keras. pungens* Raf. fruticosa levis, fol. lin. cuneatis acum. pungens integris; umbellis 5fidis bifidis, invol. conformis, involucelis ovatis rigidis pungens, caps. glabris---Palestina Arabia, leaves imbricate, ombel large, flowers small, 4 bicorne lobes. †

658, K*eras. lathyris* R. Euph. O.---Europa et America.

659. K*eras. peplus* R. Euph. O---Europa Canada.

660. K*eras. reniformis* Raf. (Euph. peploides R. 1804. E. peplus Am. bot.) fol. sepe sessilib. obovatis vel ellipt. acutis obt. et retusis integris, umb. 3fidis, involucelis reniformis, caps. glabris non angulatis---Pensylv. ad Missouri, annual, pedal or less, leaves thin pellucid.

661. Var. *retusa* R. fol. sess. ellipt. retusis —Ohio &c.

662. K*eras. spatulata* Raf. an. Euph. obtusata? Pursh &c pumila glabra. fol. arcte sessilib. obov. spatul. obt. integris, umb. 3fida, invol. ovat. obovatisque—Arkanzas, Texas, annual 3 to 6 inches high, leaves small, not serrate as says Pursh, capsules not seen.

663, K*eras. ciliata* Raf. Euph. pilosa Am. auct. non W. fol. sessilib. cuneatis apice serrulatis acutis, margine ciliatis, subtus pilosis; umb. 5fida invol. 5 ovatis, involucelis 2deltoideis acutis, capsulis glabris—Missouri, annual, semi pedal. The E. pilosa of Sibiria is a Tithymalis with lanceol. leaves, capsules verrucose &c.†

664, KOBIOSIS Raf. (non grec) periantho cupularis lobis ext. 5 crassis rotund. 5 int. alt. scariosis serratis, disco mellifluo, fl. masc. paucis brevis, antheris bilobis, fem. subsess. stylo 3fido, stigm. 6 obt. *fruticosa, fol. sparsis, fl. thyrsoideis non involucratis, bract. scariosis* —Thus another N. G. near Tirucalia, Tumalis, Vallaris &c, habit peculiar.

Kobiosis *mellifera* Raf. Euph. do O. fol. lanceol. cuspidatis integris, thyrso apice umbella nuda 5fida. bract. obl. obt. brevis subfloribus—Madera, fine shrub, leaves 4 to 6 inches long, flowers rather large dark purple.

665, Agaloma (Raf. fl. tel. 1188) *purpurea* Raf. glabra caule elato angul. striato fistuloso, fol. lanceol. acutis basi attenuatis subtus glaucis; fl. ad apice axil. pedunc. unifl. invol. 2 delt. subflos, caps. glabris—very remarkable sp. of this G. linking with last, 3 feet high, leaves 4 inches long one broad, flowers not white as in most sp. but purple rather small: Glades of Pennsylvania Allegh. Mts. very rare. †

666. *Agal. ciliata* Raf. caule piloso tereto striato, fol. subsess. ovatobl. vel. ellipt. obtusis margin et nervis ciliatis; umb. 2-4fidis paucifl. invol. similis—Alabama to Kentucky pedal, leaves uncial, flowers white and small.

667, Var. *floridana* R. elata fol. oblongis angustior, umbella multifida ramosa foliosa. fl. paucis ad dichot.—Florida, bipedal, leaves lar-

ger but narrower. Probably the Euph. paniculata Elliot.

668, Var *monanthes* R glabriuscula, fol. obl. flos solit. longepedunc. in umbella 4fid. inv. angustis—Alabama.

669, *Agal. corollata* R. Euph. dō O—Type of the G. with many varieties, *cuneifolia, angustifolia, nudiflora, pauciflora, uniflora,* flowers large white, from Canada to Louisiana.

670, *Agal. retusa* Raf. humilis, fol. sessilib. ovatis obovatisque vel obl. retusis emarg. supra scabris. subtus hirsutis; umbelis axil. et term. sepe trifidis, invol. parvis—Mts. Allegh. pedal, apparently distinct, with large flowers, 2 var. *pauciflora, multiflora.*

671, *Agal. longifolia* R. an E. graminif. Mx? caule ramoso pubens, fol. lineari lanceol. glabris obtusis, petiolis hirsutis, umbel. 3-5fidis, invol. conformis—Kentucky ad Carol. 1-2pedal, leaves 2 to 4 inches long very narrow, but always broader at base, flowers few white small, 2 var. *major, linearis.*

672, *Agal. polyscadia* Raf. glabra elata, fol. sessilib. oblongis adpressis obt. umbela multifida 3fidis dichot. amplis multifl. invol. 8-5-2 similis brevior—Mts. Allegh. 3 to 4 feet high, leaves biuncial, umbel enormous of 8 rays, next 3fid and bifid several times fl. profuse white.

673, *Agal. linearis* Raf. glabra virgata, fol. petiol. linearib. obtusis, umb. 4-5fida, 2-3chot. invol. oblongis acutis parvis—Alabama and Tennessee, semipedal, leaves uncial, flowers white large.

674, *Agal. tenuifolia* Raf. glabra ramosa, ramis filif. fol. angustis linearib. acutis, sessilib. umb. 3fida dichot. pauciflora, invol. conformis

pedic. equante—Florida (Baldwin) very slender, flowers small white. †

675, CYATHOPHORA *picta* Raf. fl. tel. 1190—Florida.

676, PLEURADENA *coccinea* Raf. fl. tel. 1174—Mexico. ∮ I published this G. 1833, it is the Poinsetia of Graham 1836.

677, DESMONEMA *hirta* Raf. fl. tel. 1175—Kentucky. ‡

678, LEPADENA *leucoloma* Raf. fl. tel. 1176. Euph. marginata Pursh non Kunth—Arkanzas.

679, VALLARIS (Raf. fl. t. 1180) *ipecacuana* Raf. Euph. do O.—Novaces. ad Carol. It has many varieties, *uniflora*, *linearifolia* leaves linear obtuse, *heterophyla* some oblong others parabolic ligulate narrow, &c.

680, Var. *portulacoides* R. Euph. do Lin. &c, apparently only a var. with broader leaves often retuse, New Jersey.

681, DEMATRA Raf. (bot) periantho camp. villoso pluridens, fl. masc. pluris, fem. stip. villoso, stig. 3 sess. acutis, capsulis duplex, externa villosa ineq. dehiscens, interna glabra crustacea, 3valvis 3sperma. *Frutex dichotomus fol. oppos. fl. axil.*—certainly a peculiar G. with habit of Xamesike and Croton, fruit very singular, the outer coat is perhaps a calix.

DEMATRA *sericea* Raf. (Euph. villosa Sieber non Waldstein) caule dichot. angul. lutescens pubens, fol. petiol. ovatis obt. integris villosis, subtus cano sericeis, fl. axil. solit. sessilib. caps. globosis cano tomentosis—Palestina, sent me by Sieber as *E. villosa*, but the previous sp. of Hungary is a Tithymalis. A shrub bipedal, leaves hardly uncial, flowers small, capsules large.

XAMESIKE Raf. fl. tel. 1181, This nat-

ural group includes many small plants often blended, habit similar in all, but the minute flowers are difficult to analyze and must be studied alive,I have some with only one male fl. in the perianthe that form my G. *Aplarina* new flora 892, many will be found to possess this character : meantime I now make 3 subg. in it *Xamesike*, *Xamobala* lobes entire, and *Aplarina* fl. monandrous.

682, X. *supina* Raf. dec. 15—Novebor. ad Ohio, well described by me with the 2 next as Euphorbia in 1817 : this has leaves ovatoblong obt. serrat. fl. fasciculate, prostrate, deemed E. maculata by Torrev.

683, X. *littoralis* Raf, dec. 16—Novebor. leaves ovate rounded subcord. uninerve serrate, fl. solitary. prostrate.

684, X. *vermiculata* R. dec. 21. Noveb. ad Kentucky, erect, leaves oblong acute serrate trinerve, fl. solitary. These 3 belong to *Xamobala*, have hairy stems, leaves obliqual.

685, X. *glauca* Raf. caulib. prostr. ramosis pilosis fol. glaucis glabris ovatobl. obliq. subserr. acutis 3 nervis, axilis paucifl. foliosis, caps. glabris—Kentucky, Virg. easily known by its glaucous appearance, not spotted.

686, X. *depressa* Raf. Euph. do Torrey, thymif. Am. bot. not of India, leaves elliptic obt. subserrate hairy beneath, axils multiflore. New York to Louisiana.

687, X. *maculata* R. Euph. do O. differs from X. vermiculata by leaves smooth with a fuscate spot, obtuse uninerve opaque not vermiculate.

688, X. *palestina* Raf. Euph. canescens Sieber non L. caulib. prostratis pubens, fol. glabris ellipt. obt. obliq. crenatis, axilis multifl. foliosis,

caps. glabris—Palestine, certainly neither *X. canescens* nor *vulgaris*, long stems, small leaves thicker above.

689, *X. alsinoides* Raf. glabra dichot. diffusa, fol. sessil. ovatis acutis integris, fl. axil. solit. sessilib. caps. granulatis—Sibiria, small plant, flowers very minute, leaves not obliqual, found in Collins herb. as *E. 6angularis*!

690, *X. deltifolia* Raf. glabra dichot. erecta, fol. sessil. lato deltoideis acutis integris, fl. axil. solit. sess. caps. granulatis—Florida pedal, leaves not obliqual, lobes of flowers entire, akin to last and to *E. cordifolia* of Elliot; but not at all like *E. literata* of another G. altho' so labelled in Collins herb.

691. *X. polygonifolia* R. Euph. O—Noces. ad Car. maritimis.

692, *X. gracilis* R. Euph. do Elliot.—Florida, near last, leaves longer, fl. larger white, lobes entire, thus also a *Xamobala* like most of the above.

693, *X. A. hypericifolia* R. Euph. O of subg. or G. Aplarina like all the next. Canada ad Carol. several var.

694, *Var. sanguinolenta*, simplex, fol. macula rubra notata. Pensylv.

695, Var. *parviflora* R. ramosa elata, fol. angustis obl. fl. parvis—Alabama.

696, *X. A. micranthes* Raf. glabra prostrata diffusa, fol. petiol. ellipt. obt. integris vix obliq. axilis sepe unifl. vel foliosis, fl. subsess. caps. glabris—Louisiana ad Alabama, very branched, leaves very small, fl. very minute.

697, *X. A. microphyla* Raf. n. fl 994—Texas and Louisiana, near last, leaves still smaller cordate obliqual.

698, *X. A. prostrata* Raf. n. fl. 993—Pennsylv. habit of the first kinds of this G.

699, *X. A. rotundifolia* Raf. Euph. humboldti? nonulis—caule erecto simplex glaber, fol. petiol. ovato subrotundis acutis nervo piloso, integris, fl. longe pedunc. solit. capsulis glabris —Central America, pedal, leaves thin uncial flowers small on long peduncles, perianthe 4dentate, my specimen female.†

700, Sesuvium *verracosum* Raf. new fl. 758 —Arkanzas.

This 7th Century includes 20 new Genera, whereof 5 now first described, besides 40 new species of mine, whereof 25 are now described, all Endogenous plants with a few shrubs.

CENTURIA VIII.

701, Galax *erythrorhiza* Raf. aphyla L. Erythr. rotundif. Mx. Pyrola urceolata Poiret Rad—Unaka Mts. very rare.†

702, Pterospora *andromedea* Nut, Raf. med. fl. t. 78. Monotropa procera Torrey—near Albany, very rare and curious.

PYROLA of L. divided into 4 subg. in my Medical Flora 1830, which may be deemed Genera and others must be added. Radius had only 14 sp. in his monograph, and altho' I lack 3 I will now illustrate 32, see till 734.

703, Pyrola *elliptica* Nut. not in Radius unless blended, easily known by the thin elliptic leaves; this and all the akin with declinate flexuose style, and flowers racemose nodding belong to my *Streptilia* real type of Pyrola, subg. of 1830—North America.

704, *Pyrola petiolaris* Raf. fol. 4-5 longe petiol ovatis vel ellipt. utrinque acutis integris, supra subreticul. scapo angul. squama ad basis

obl. acuta, racemo 8-15fl. bract. obl. ac. pedic. eq.--Bohemia, sent me as P. rotundif. unmeaning name applied to 6 sp. not that of Radius: petiols biuncial, leaves uncial rather thin, flowers middle size, caudex scaly, scape pedal.

705, *Pyr. bifolia* Raf. fol. 2 petiol. eq. elliptsubrot. obt. vel acutis integris, supra maculatis vix reticulatis, scapo angul. squamis 2 obl. ac. racemo 10-12fl. bract. ped eq.—Germany, sent me also as P. rotundif. only 2 unequal leaves smaller spotted, flowers rather large, bracts similar to scales.

706, *Pyr. reticulata* Raf. (rotundif. Am. bot.) fol. 3-4 pet. subeq. subrotundis vel obov. subintegris obt. supra reticul. nervosis, interdum maculis reticul. scapo angul. sq. 2-3 lanceol. acutis, racemo 12-20fl. bract. lanc. ac. ped eq.—Allegh. Mts. leaves firm 1 or 2 inches long and broad, strongly netted, scape pedal. flowers large.

707, *Pyrola unifolia* Raf. fol. sepe unica longe petiol. ellipt. obt. crenata. supra reticul. scapo angul, sq. 3 lanc. acutis, racemo sub12fl. bract. lanc. ped. eq.—New Jersey, petiol. 3uncial. leaf 2uncial, scape pedal, akin to last but flowers smaller, leaf well crenate, sometimes 2 but one soon decays.

708, *Pyr. obovata* Raf. folia unica obov. subsess. vel petiolo marginato, integra subrepanda supra reticul. scapo angul, tortilis paucifl. squamis 2 lanc. acut. bract. similis—summits of Alleghanies, semipedal, leaf and flowers small, only 6 to 8. †

709, Pyr. *orbiculata* Raf. var. *unifolia* vel P. *monophyla*. folia unica longe petiol. ovato subrot. vix cord. obt. integra supra reticul. scapo vixangul. paucifl. sq. 3 obl. obt. mucronatis,

bract. lanc. acutis ped. eq.—Germany &c, semi-pedal, leaf uncial, petiol 2, flowers 6-8 rather small, nearer to P. rotundif. of Radius than P. petiolaris.

710, *Pyr. grandiflora* Rad.—Labrador, leaves 3 small petiols longer, scape 3uncial, flowers 2-5 as large as in P. reticulata, scale elliptic acute, bracts lanc. ac. longer than pedicels. It forms with next a subg *Toxilis* by style arched not flexuose, stamens not ascending, stigma 5lobed &c.

711, P*yr. cespitosa* Raf. rotundif. Torrey!... fol. plurimis cespitosis parvis petiolis subeq. ovatis vel subrot. obt. marg. integris revolutis scapo angul. nudo paucifloro, bract lanc. acutis eq.—summit of Oquago, Taconic and Saranac Mts. of New York, 3 to 6 inches high, leaves 6 to 12 very small hardly reticulate, fl. 5-8 medial size. subg. *Toxilis.*

712, P*yr. heterophyla* Raf. rotundifolia Tor! —repens petiolis brevis et longis, fol. 3-7 membranaceis ovatis et obovatis, obt. vel retusis, integris vel crenatis vix reticul. scapis 1-4 angulatis nudis, racemis 8-10fl. bract. lanceol. acutis pedic. brevior—New York to Virg. near to P. elliptica, but remarkable by the variable leaves 1 or 2 inches long, scapes 6 to 10 inches, flowers medial, the naked scapes and short bracts distinguish it well through all its variations.

713, P*yr. hybrida* Raf. medial between P. heterophyla and P. reticulata—fol. 1-6 ovat. obov. et ellipt. obt. vel retusis integris, cartilagineis supra nervoso reticul. petiolis brevis, scapo ang. squamis 2-3 lanc. ac. bracteis similis ped. eq.—Mts. Allegh. it differs from P. reticulata by smaller leaves and flowers, 2 var. *unifolia* and *pauciflora.*

714, *Pyr. asarifolia* Mx. to which Radi has refered P. chlorantha, virens, convoluta; but his 4 var. figured offer 4 distinct sp. therefore I must describe mine—petiolis elongatis; fol. subcord. subrot. obt. et retusis integris membr. vix reticulatis, scapo vix angul. sq. 2 obl. acutis, racemo multifl. bract. ped. eq.—New England, Canada, 4 to 8 inches, leaves uncial like those of Asarum virginicum, fl. many from 5 to 10, fl. medial.

715, *Pyr. ovata* Raf. petiolis brevis, fol. ovatis obtusis integris vix retic. scapo angul. contorto 8-10 fl. sq. 2 lanceol. ac. bract. similis eq.—Allegh. Mts. leaves and fl. larger than in last.

716, *Pyr. subcordata* R. petiolis longis, fol. ovatis obt. subcord. integris membran. vix nervosis, scapo angul. 6-10fl. sq. 1-3 obl. acum. bract. similis eq.—Germany and England, sent me as P. rotundif. again, medial between last and P. petiolaris, 8 or 10 inches high, petiols 2 inches, leaves 1, flowers small.

717, P*yr. virgata* R. repens, folia unica minima subrot. retusa integra vix nervosa, petiolo subeq. scapo virgato angul. subnudo basi sq. 2 subulatis, apice 6-8fl. laxo, bract. subul. ped. brevior,—Apalachian Mts. semipedal, leaf minute 1-3d of inch, flowers small: of subg. T*oxilis*, perhaps the P. aphyla of Amer. botanists. I lack P. dentata and picta.

BRAXILIA Raf. diff. Pyrola, cal. 5part. petalis vix patens, stam. rectis brevis, stylo brevis recto, stigma 5dent. &c.

718, *Braxilia parvifolia* Raf. Pyrola minor L. O. fol. ovatis acutis serrulatis mucronatis petiolis eq. caule apice nudo squamis 3-4 lanc. acutis racemo paucifl. subsecund. fl. nutans, pe-

dic. brevis bract. eq.—Labrador, Sweden &c, small plant, 3 to 4 inches high, leaves small—this G. differs from Pyrola by petals campanulate, stamens streight, style short erect not curved, stigma 5dentate.

719, *Brax. squamata* Raf. petiolis brevissimis marginatis, fol. subrot. integris obt. margine revolutis, caudex squamato, scapo teres, sq. 1-3 elipt. obt. coloratis, florib. 2-3 bract. obt. ped. brevis, cal. obt.— Labrador, blended with last, quite unlike, leaves equaly small but broad, stem 2 or 3 inches with large obtuse scales, flowers white large.

720, *Brax. viridiflora* Raf. petiolis angustis eq. fol. subrot. integris, scapo gracilis teres trifloro, squama unica subulata, bract. acutis lanceol. ped. eq.—Alleghany Mts. of Pennsylv. similar to last, but flowers small grecnish, scales very different, calix acute.

721, *Brax. media* Raf. Pyrola minor nonnulis. petiolis elongatis, fol. obov. integris vel subcrenatis obtusis, membranaceis, scapo teres subnudo multifl. ped. cernuis brevis bract. eq.—Anglia, Germania. Sent me as P. minor, but unlike it, leaves larger uncial, flowers small, scape semipedal.

722, *Brax. heterophyla* Raf. petiolis brevis marginatis, fol. ovatis obov. elipt. subrot. obt. vel. acutis, integris vel subrepandis membranaceis, scapo teres nudo vel sq. 1 subul. racemo multifl. pedic. brevis. bract. obt. eq.—summit of Alleghany Mts. leaves large uncial, stem. 6 to 8 inches, flowers small, incarnate. Near to *O. rosea* with ovate crenate leaves, longer petiols.

ORTHILIA Raf. diff. Pyrola, cal. 5dent. petalis campanulatis, stam. rectis, stylo elongato filif. recto, stig. 5dent. caps. 5gona profunde

umbilicata. *Caulib. ramosis, floribus racem. secundis.*

723, *Orthilia parvifolia Raf.* Pyrola secunda europea L. &c, caule erecto ramoso squamoso, fol. parvis. brevi petiol. ovatis acutis serrulatis, bract. lanceol. acutis pedic. longior—Europa, my specimens from Bavaria, small plant 2 or 3 inches high. leaves minute, scales large similar to bracts, flowers small subsecund.

724, *Orthilia procumbens* Raf. caule procumb. ramoso vix squamoso, fol. ovatis mucronatis crenatis, petiolis brevis, bract. acutis ped. eq.—Canada, Novanglia, Novebor—the common American sp. miscalled Pyrola secunda by our botanists, quite unlike the last, much larger in all parts, leaves uncial, flowers incarnate.

725, *Orthilia dentata* Raf. caule suberecto vix ramoso, squamoso, fol. ovatobl. utrinque acutis, dentatis subtus glaucis, petiolis subeq. fl. pedic. ad bract. longior—Alleghanies &c, blended with last, leaves narrower, petiols longer, flowers smaller.

726, ODOSTIMA Raf. diff. Pyrola, cal. 4-5part.. obt. petalis 4-5 rotatis, stam. 8-10 brevis rectis subeq. antheris subglob. biporosis. ovar. glob. stylo recto brevis teres, stigma magnum 3-5fid. dentibus ineq. erectis acutis. caps. 3-5loc. 6-10sperma. *caulis uniflor. unisquamato fol. vertic*—Types the *Pyr. uniflora* and akin, very distinct habit, 5 sp. 2 European and 3 American.

Odostima *caulina* Raf. caulescens, fol. opp. ternisque latovatis acutis petiolis equante acute serratis squama obov. ad apice, petalis obtusis —Europa borealis, sent me as P. unift. 4 to 6 inches high, leaves semiuncial, flower said to be yellowish and odorous like Convallaria.

727, *Odost. orbiculata* Raf. subacaulis, fol.

subrot. crenatis. linking with next sp. by leaves similar, but long petiols,bract or scale terminal, perhaps a species? sent me by Decandole as the real P. uniflora.

728, *Odost, orbiculata* Raf. subacaulis, fol. 3, petiolis brevissimis, orbiculatis obtusis crenatis, squama medialis ellipt. obt. petalis obt. undulatis—Alpis et Montes Europa, 2 or 3 inches high. flowers large.

729, *Odost. obovata* Raf. subacaulis, fol. 3 petiolis brevis,obov. obt. apice serrulatis, squama term. ovata, petalis obt.—Novanglia &c, 2 inches, leaves uncial nearly as long as stem, rather thin.

730, *Odost. grandiflora* Raf. subcaul. fol. oppos. petiolis brevis, ovatis ellipt. acutis serratis. squama infera subrot. petalis obt.—Canada &c, near to O. caulina, but larger leaves, the lower subsesile, flower large yellow, stem triuncial.

731, *Odost. acutiflora* Raf. subacaulis, fol. 3 subsessilib. obov. subrot. obt. repando crenatis, squama term. ovata acuta, petalis acutis—Labrador ad Noveboraco, biuncial, leaves very small, flower peculiar. †

732, CHIMAPHILA *maculata* Pursh. Pyrola do O. Raf. med. fl. t. 79. I restrict this G. to this single American sp. with calix 5dentate, style immersed, stigma urceolate, *flowers* 1-3 *umbellate*—it has several var. *ovata,lanceolata, heterophyla, uniflora.*

733, Var. *durandi* R. Pyrola do Raf. atl. j. uniflora, fol. ovatis immaculatis. Probably only a var. or incipient sp.

733,. PIPSEVA Raf. 1808, cal. 5part. stylo brevis teres crasso, stigma annularis, *caules-*

cens, fol. subvertic. semperv. florib. corymbosis ebract.

Pipseva officinalis Raf. Pyrola umbellata L. Chimaph. corymbosa nonulis &c—several var. *cuneifolia, angustifolia, multiflora, pauciflora* &c. I have not the European plant, which may be different if realy umbelate.

735, Tiricta *daucoides* Raf. new fl. 778. South New Jersey, N. G. near Daucus.

736, Babiron *pusillum* R. new fl. 780, Daucus pusillus Tor. non Mx. Alabama &c.

737, *Bab. divaricatum* R. new fl. 781, put in 5 Genera before! see my syn. Florina &c.

738, *Bab. dichotomum* R. n. fl. 782. Florida.

739, Daucus *scadiophylus* R. n. fl. 783, Alab. Forida.

740, *D. scariosus* ib. 784. Pensylv.

741, *D. brevicaulis* ib. 785. Pensylv.

742, *D. nudicaulis* ib. 786. Pensylv.

743, *D. levis* ib. 787. Novaces. ad Kentuky.

744, *D. pusillus* Mx. E. Raf. n. fl. 788. subg. *Lophioplis*, Florida.

745, *D. brevifolius* Raf. n. fl. 789. Mts. Allegh.

746, *D. heterophylus* R. n. fl. 790, D. carotta of Am. bot. like all the above. Canada to Louisiana, several var. *fumaroides, asper, laxifolius.*

747, *D. strigosus* Raf. new fl, 791. Anglia —blended with next in D. carotta.

748, *D. agrestis* Raf. n. fl. 792 D. carotta L. O. the wild European type, several sp. were blended in D, carotta, now called D. maritimus. carotta, polygamus, exiguus and these two.

749, Solanum *caroliniaanum* L—Pensylv. ad Louisiana.

750, *Sol. obliquatum* Raf. scabra herb.

inerme fol. brevipet. obliquis ovatolanc. elongatis integris acum. pedunc. racemosis 3-5floris—Florida near last, but leaves narrower entire 4 to 5 inches long, flowers similar size white, inerme but roughly puberulent, herbaceous.

751, *Sol. floridanum* Raf. toto pilosum hirtum, caule herb. flexuoso ramoso inermis, fol. subsess. obovatis obtusis repando sinuatis, nervo medio aculeato, pedunc. sepe trifloris—Florida near to S. *mammosum* but more inerme, leaves not cordate 2 or 3 inches, flowers size of the 2 last.

752, *Sol. verbascifolium* Florida akin to *S. obliq.* but fruticose tomentose, leaves not obliqual, peduncles multifl. †

753, *Sol. dimidiatum* Raf. herb. subinerme scabrosum tomentosum. fol. petiol. amplis ovatis lobato pinnatif. lobis acutis subdent. basi ad petiolis dimidiatis, racemis furcatis multifl.—Texas, New Mexico, Arkanzas, very striking sp. leaves semipedal, base decurrent or longer on one side so as to be dimidiate, flowers large blu-ish, calix campanulate with 5 distant teeth subulate, lobes of corolla ovate reflexed acute nervose, anthers linear subsessile distinct alike, and thus not an Androcera.

754, *Sol. chenopodium* Raf. (nigrum var. undatum) inerme caule angul. glabro, fol. ovatis obtuse sinuatis acutis, umbellis sepe 5fl.—Europa.

755, *Sol. exaratum* Raf. nigrum var. O. diff. caule scabro exarato, fol. longe petiol. ovatis obtuse dentatis, umbellis sepe trifloris—Europa.

756, *Sol. emulans* Raf. Virginic. am. auct. non L. caule angul. glabro, fol. pet. ovatobl. utrinque acum. inequaliter acute dent. umbellis cernuis 3-5fl. baccis nigris globosis—Novanglia

ad Kentucky—usualy mistaken for S. Virg. but smooth smaller, fl. white small, berries pisiform.

757, *Sol. virginicum* L. usually blended with S. carolinian. by our botanists, nearer to S. obliquatum, leaves obliqual angular pubescent, stem leaves and calix subspinose, flowers racemose.

758, *Sol. bidentatum* Raf. caule herb. teres inermis, fol. ovatis vel subcord. acutis integris vel basi bidentatis tenuis levigatis, nmbelis sepe 5floris—Sicilia, Italia, and near to S. patulum of India.

759, *Sol. bonariense* L very near S. virg. obliq. and carol. leaves obliqual. but a shrub. Paraguay.

760, *Sol. coagulans* Vahl. Arabia, Egypt. †

761, *Sol. pseudocapsicum* L. Azores, Madera, forming a subg. *Minon* by calix and corolla 5parted anthers distinct.

762, *Sol. pilosum* Raf. acul. albo piloso hirsuto, fol. obliquis ovatobl. glaucis acutis, sinuato pinnatif. lobis dentatis acutis, cymis pedunculatis paucifl.—South America, sent me as *Sol. decurrens* (no such name,) near my S. dimidiatum, but very hairy, leaves small uncial, flowers 5 or 6 very large, calix 5fid, lobes of corolla uninerve patent acute, stamens as in 753, hardly porose.

763, PARMENTIERA Raf. diff. Solanum, cal. 5fid. corolla 5loba, stam. 5 antheris ellipt. 2loc. intus dehiscens non porosis, stylo elongato, stig. capit. bacca 2loc. *tuberosa, fol. pinnatis, fl. corymbosis*—this G. for the Potato was proposed 100 years ago in France, it has since been blended with *Lycopersicon* differing by 6 to 9 stamens, berry multilocular.

PARMENTIERA *edulis* Raf. Sol. tuberosum O. fol. interrupte pinnatis, foliolis ovatis acum. in-

tegris glabris, corymbis multifl.—such is the common Potato native of Peru, compare with next.

764, *Parmentiera balduini* Raf. fol. pinnatis. foliolis ovatobl. obtusis ciliatis, terminalis major rotundata integra, corymbis pubescens 3-6fl—Uraguay, found by Baldwin at Mt. Video, deemed the wild type of our Patato, but leaves different, small tubers mixt with fibrose roots,stem 6 to 10 inches, flowers not so large. &c.

765, ANTIMION Raf. (n. grec) diff. Parmentiera, cal. globoso 5-7fid. lac. ineq. subfoliosis, cor. campanul. 5fida, stylo brevis, (an tuberosa ?)—Solanum includes yet 20 fine distinct Genera, I can only add here those I possess.

Antimion tomentosum Raf. Sol. peruv ? fol. interrupte pinnatis, foliolis ovatis obovatisque repandis acutis supra pubescens, subtus tomentosis, cymis pedunc. compos, multift. subfoliosis, calicib. tomentosis—Peru, sent me as S. peruv with next altho' of different Genera ! corollas hardly longer than calix with enclosed stamens.†

766, SCUBULON Raf. (n. antiq) cal. 5part. eq. cor. 5part. antheris 5 connatis in tubo obl. 5dent. intus dehisc. stylo filif. stigma bidentatum. *fol. pinnat. fl. racem.*—thus stamens united as in Solanum, but opening as in Lycopersicon.

Scubulon *incanum* Raf. fruticos. inerme, fol. pinnatis cano pulverulentis, foliolis obl. obt. integris vel repandis undulatis, ultima ovata, racemis laxis multifl. cal. linearib. baccis globosis glabris—Peru, how different from last, and yet labelled alike by orthodox botanists, flowers ochroleucous, folioles small.

767, *Scubulon humboldti* Raf. Sol. do ? caule herbaceo sulcato, fol. interrupte pinnatis, foliolis petiol. cordatis sinuatis acutis glabris,

racemis paucifl. cal. subul.—South America, probably the Sol. humboldti of Kunth and gardens. †

768, Androcera *lobata* Nut. Ceranthera Raf. 1817, Sol. heterandrum Pursh ic—Missouri, rare plant; my good and previous name has been employed for a labiate. My specimen is semipedal annual, very prickly, calix very much so around the fruit.

769, Capsicum *purpureum* (quid) herbac. fol. longe petiol. ovat. acum. pedunc. axil. solit. —Antilles, one of the sp. blended in C. annuum, fruit purple.

770, Atropa *belladona* L.—Europa.

771, Mandragora *acaulis* Dec. Atropa mandragora L.—Sicilia, Grecia &c, the Mandrake of the Bible.

772, Ramonda *pyrenaica* Pers. Dec. Raf. fl. tel. 1068. V*erbascum* myconi L.—Pyrenees Mts. rare. †

773, Verbascum *thapsus* L.—Eur. Amer. type of Subg. Thapsus, see fl. tel. 1066.

774, *Verb. claytoni?* Mx. this rare plant of Carolina omitted by many, chiefly differs from V. blattaria, by leaves larger lanceol. not cordate, often duplicate serrate and flowers spicate not racemose, lower leaves cuneate 6 to 8 inches long. †

775, V*erb. undulatum* Lam.—Creta,

776, *Verb. flocosum* L.—Germania.

777, *Verb. austriacum* Jaq.—Germania.

778, V*erb. pulverulentum* L.—Europa.

779, V*erb. phoeniceum* L.—Germania.

780, V*erb. nigrum* L.—Europa.

781, Verb. *spicatum* Raf. glabrum, fol, amplex, cordatis ovatobl. acum. argute dentatis, fl. spicatis remotis solitaris, bracteis lanc. acum,

cal. eq.—sent me from Europe as V. virgatum, but fl. not agregate, nearer V. nigrum. †

783, V*erb. collinsi* Raf. glabriusc. fol. cordatis, radicalis petiol. caulinis amplexic. dentatis undulatis acutis, florib. spicatis ramosis pulverulentis, bract subul.—Europa australis, cultivated by Collins and deemed medial between V. nigrum and virgatum, leaves ample, lower 6 inches, spike paniculate, flowers small.

784, V*erb. pyramidale* (quid ?) vel ***macrophylum*** Raf. fol. amplis glabris ellipt. obt. subcord. sinuato repandis, florib. panic. pyram. ramulis racemosis virgatis elongatis puberis, bract. obl. acum. ped. eq.—Asia? leaves pedal very large yet thin, flowers incarnate.

785, *Verb. phlomoides* L.—Italia, type of subg. ***Flomosia***, see fl. tellur.

786, HYOSCIAMUS *aureus* L.—Creta, Syria.

787, *Hyosc. muticus* L. betafolia Lam. datura Forsk—Egypt, Arabia.

787, *Hyosc. albus* L—Europa austr. sent me also under the false name of H. mutabilis.

789, *Hyosc. niger* L—Europa, Amer. bor.

790, *Hyosc. physalodes* L—Sibiria, some leaves repand in my specimen misnamed H. orientalis. †

791, SCOPOLIA *carniolica* Jaq, Hyosc. scopolia L. &c—Carniolia, Illyria. I restore this G. improperly abolished because the capsule was like Hyosciamus; but the corolla is totally different, as in Atropa, campanulate entire, calix camp. 5fid. stamens 5 equal at base corolla, anthers linear, very rare. †

792, BLENOCOES *glutinosa* Raf. fl. tel. 716, Nicotiana do O—Peru.

793, NICOTIANA *paniculata* R. P. fl. per—Peru.

794, *Nicot. tabacum* L—America.
795, *Nicot. rustica* L—America.
796, PETUNIA *nyctaginea* Juss. Pers—Paraguay.
797, *Petunia longiflora* Raf. glabra, fol. amplex. oblongis acutis, corolla tubo longissimo, limbo acuto—Uraguay, M. Video, tall plant, leaves 3 to 6 inches flowers quite as long white.
798, *Petunia odorata* Raf. glabra, fol. obl. repandis acutis sessilib. florib. racemosis, cor. limbo obtuso—Brazil, leaves large, flowers small uncial incarnate fragrant.
799, DIPHYLEIA *cymosa* Mx. Raf. new fl. 736—Unaka Mts. very rare. †
800, CRYPTINA *minima* Raf. review,Crypta! Nut. *Peplis americana* Pursh—Hudson, Delaware flum. ad ripas, singular and rare plant, near Peplis.

This 8th Century includes 12 New Genera of mine, whereof 8 are now described, besides 50 new species, whereof 40 are now first described, chiefly akin to Pyrolides and Solanides.

CENTURIA IX.

801, MENTHA *capitata* Raf. glabra fol. remotis petiol. ovatis serratis acutis, fl. capitatis, subsess. term. stam. et stylis vix exsertis—Origon, very fragrant, stem bisulcate, leaves uncial, flowers incarnate in a short elliptic head sessile between 2 leaves, or rounded a little apart.
802, *Mentha cinerea* Raf. new fl. 978—Welsh Mts. of Pennsylv. quite local there.
803, *Mentha citrata* W. odorata Sm—Anglia, near to my capitata, differs by leaves elliptic. subcordate. head of fl. small, stamens inclosed.
804, *M. piperita* L—Europ. Amer.

805, *M. pectinata* Raf. canescens, fol. sessilib. ovato lanceol. pectinato incisis. spicis obl. stam. inclusis, stylis exertis—Carpathian Mts. Bohemia &c, sent me as M. sylvestris, but unlike, nearer M. crispa, branched, leaves small grey, flowers white.

806, *M. gentilis* Sm.—Anglia.

807, *M. gracilis* Sm.—Europa.

808, *M. viridis* L—Europa.

809, M. *rotundifolia* L—Sicilia.

810, M. *hirsuta* L—Anglia, blended with next by Sm. but leaves subsess. ovate cordate, stem retrose hispid, spike oblong.

811, M. *aquatica* L.—Europa leaves petiol. ovatoblong, fl. capitate.

812. M. *acutifolia* Sm. verticillata Hoffm.—Europa.

813, M. *gratissima* W—Germ. Helv.

814, M. *crispa* L—Europa.

815, M. *obliqua* Raf. glabra, fol. subsess. obliquatis glaucis ovatis serratis acutis, fl. vertic. et term. fasciculis oppos. pedic. stam. inclusis—Sibiria, sent me as M. *hirsuta* altho' totaly smooth, stem branched, leaves thin, flowers incarnate in small opposite umbels pedicellate.

816, M. *arvensis* L. vel ciliata—Europa.

817, M. *agrestis* Raf.—Europa, deemed a var. of last by some, but stem erect retuse pilose, leaves larger broadly ovate.

818. M. *alopecuroides* Sole—Hungaria, near M. *crispa*, but hirsute, leaves sessile round ovate serrate, spikes oblong, stamens inclosed.

819, M. *tenuis* Mx. O—Am. bor.

820, M. *canadensis* L—Canada and Alleghanies, but less distinguished by short stamens, than hairy lanceolate leaves.

821, M. *borealis* Mx.—Am. bor. not var. of

M. acutifolia as deemed by Persoon, nearer the last, more common, humble or procumbent, leaves punctate pubescent.

822, M. *lycopoides* Raf. glabra, fol. pet. lanceol. acum. ineq. inciso serratis rugosis, fl. vertic. pedic. stam. exertis—Ohio, Kentucky &c, erect ramose. leaves uncial or less narrow, flowers whitish, aspect of Lycopus.

823, M. *traxigona* Raf. glabra, caule angulis scabris, fol. petiol. margine scabris, oblongis serratis, basi integris, subtus glaucis punctatis, florib. vertic. pedic. hirsutis stam. exertis—Lake Erie to Illinois, variable, leaves large or small, always rough stem.

824, M. *glauca* Raf, glabriusc. fol. pet. lato lanceol. utrinque acumin. remote serratis, basi integris, tenuis, subtus glaucis ciliolatis, fl. vertic. pedic. pubescens, stam. exertis---Mts. Alleghanies, erect, leaves large biuncial very thin, calix canescent, corolla pale incarnate.

825, *Var. parvifolia* Raf. diff. glabra, fol. parvis ovatobl. non acum.---Pensylv. this was labelled by Muhlenberg M. *gracilis* in Collins herb. altho' mixt with last, leaves semiuncial,

827, Lycopus *valgaris* Pers. europeus L---Europa: it has stem and leaves above with nerves below pubescent, leaves petiolate ovate sinuate serrate.

828, *Lycopus exaltatus* O—Bohemia, Hungaria, sent me as L. europeus, stem rough, but leaves smooth sessile pinnatifid at base, acuminate at end.

829, *Lyc. pinnatifidus* Raf. heterophylus Raf. med. fl. exaltatus Pursh El. sinuatus! El. ---glaber, fol. pinnatifidis, inferis petiolatis, pinnulis angustis subdentatis, superis lanceol. sessilib. sinuato laciniatis, axilis barbatis pauciflo-

ris---Carol. Virg. Kent. very distinct sp. some lower leaves triuncial almost pinnate, gradualy smaller and less divided above; nodes bearded around or hairy ring around the axils. Several var. *Heterophylus, traxigonus, dissectus &c.*

830, *Lyc. pauciflorus* Raf. (Pensylv. Mg. europeus Am. bot.) glaber, fol. sessilib. lanceol. utrinque acum. medio sinuato serratis, axilis paucifl. vix ciliatis---Novanglia ad Louisiana, leaves uncial narrow, often ramose.

832, *Lyc. angustifolia* El. glaber caule virgato erecto, fol. sessil. lin. lanceol. utrinque acum. subserratis vel integris, axilis nudis multifl.---Carol. ad Illinois, stems slender pedal, eaves very narrow and long, biuncial. var. *longifolius, linearis &c.*

833, *Lyc. integrifolius* Raf. glaber caule procumbens, fol. sessilib. lanceol. utrinque acum. integris vel subdent. subtus glaucis, axilis nudis pauciff---Carol. ad Florida, stem flexuose prostrate, leaves large biuncial. broad in the middle.†

834, *Lyc. amplectens* Raf. glaber, caulib. virgatis simpl. angulis obt. fol. arcte sessil. subamplex. basi dilatatis oblongis acum. remote serratis, axilis nudis pauciff.—Alabama, pedal sesquipedal leaves uncial, pale beneath, this sp. differs from all by obtuse angles and leaves not attenuate at base.

EUHEMUS Raf. diff. Lycopus, cal. brevis muticus 4fidus, sem. exertis crenulatis—I made it a subg. 1830 in my medical flora 2 p. 27, but it must be a G. at last, Lycopus having 5fid. spinose calix: such characters are generic, the calix making the best Genera of Labiate.

835, EUHEMUS *officinalis* vel *surculosus* R. Lycopus Virginicus L. O.—caulib. basi surculosis, pulverulentis angulis obt. fol. sessil. ovatobl.

utrinque acum. serratis, scabriusculis subtus punctatis, axilis multifl. et paucifl—see my long account in med. flora, several var. *gracilis*, *microphylus*, *ruber*, *latifolius* &c, found from Canada to Louisiana.

836, *Euhemus sylvaticus* Raf, caulib. elatis glabriusc. fol. subpetiol. ovatis vel obovat. acum. grosse serratis, subtus glaucis, axilis paucifl.—Kentuky Ohio. In woods, bipedal leaves large triuncial thin. I made it a var. in 1830, but it deserves to be deemed a sp. altho' probably a sylvatic deviation, removed from waters.

837, *Euhemus uniflorus* Raf. Lyc. do Mx. glaber pusillus, angulis obt. fol. sess. inferis ovatis obt. subcrenatis, superis lanceol. obtuse serratis, axilis 1-2floris—Mts. Alleghany 4 to 6 inches high, deemed a var of Lyc. virg. by Torrey, but no such thing, leaves semiuncial obtuse.

838, GALEOPSIS *ochroleuca* Pers. grandifl. W. villosa Sm.—Europa, pectoral like Euhemus.

839, *Gal. versicolor* Curt. Pers. cannabina Roth—Germania &c.

840, *Gal. ladanum* O—Europa.

841, *Gal. angustifolia* Pers. Europa.

842, *Gal. tetrahit* O—Eur. America.

843, *Gal. montana* Raf. new fl. 226—summits of Alleghanies.

844, GALEOBDOLON *luteum* Sm. vulgare Pers. Sylvis Europa.

845, *Galeobd. montanum* Hofm.—Mont. Europa.

846, LEONURUS *multifidus* Raf. fol. petiolatis cordatis ovatisque palmatis 5fidis incisis acutis, subtus pubescens, superis lanceol. trifidis, corollis lanatis cal. longior—Novacesarea ad Kentucky,

bipedal, leeves large and broad, flowers small, neither L. cardiaca nor crispus.

847, *Leonurus reticulatus* Raf. pumilus, fol. petiol. 3-5fidis lobis serratis acum. superis cuneatis, omnis subtus rugosis reticulatis glabris, cor. lanatis cal. longior—Mts. Alleghanies,semipedal, annual, leaves small, flowers as large. †

848. *Leonurus cuneifolius* Raf. fol. subsess. cuneatis oblique trilobis, lobis ineq. angustis elongatis integris vel sinuatis, fol. superis linearib integris subtus glaucis glabris; cor. pubescens cal. longior—Sibiria, et Amer. ad ripas flumine Delaware, Susqueh. Ohio. Fine plant, bipedal, with long narrow leaves, 2-4inches, flowers larger than in the 2 others. Is it a Panzeria? It had 3 wrong names in Collins herb. Leonurus marubiastrum, Phlomis condensata! Hyssopus trilobus! of Kin.

PANZERIA Moench (non Wild. est Eperua Aublet) diff. Leonurus, cor. galea fornicata, labium 3part. medium cordatum.

849, Panzeria *villosa* Raf. Leon. tataricus? L—caule villoso, fol. pet. trifidis acutis vix dentatis supra rugosis, subtus glaucis villosis, cal. corollisque villosis—Sibiria, sent me as L. Sibiricus, more like L. lanatus or Panz. multifida M. leaves uncial, flowers ochroleucous.

850, P*anzeria angustifolia* Raf. Leon. Sibiricus ? L—glabra,fol. petiol. tripart. lobis ineq. linearib. integris vel lacin. cal. corolisque pubescens—China, sent me as L. tataricus, but nearer to L. sibiricus, leaves slender, flowers red and small.

851, ATIRBESIA Raf. (n. antiq.) diff. Marrubium, cal. 5dent. équalib—the G. Marrubium must be divided in many G. like Phlomis by the multiform calix.

Atirbesia bracteata Raf. Marub. peregrinum L. O—Silesia, Hungaria, Grecia, Creta, Sicilia &c.

852, BERINGERIA Necker Raf. Pseudodictamnus Ad. diff. Marrubium, cal. infundib. limbo campanulato 10lobato, lobis alt. minorib. dentiformis.—Type *B. dictamnoides* Raf. Mar. pseudodict. L. O.—Creta.

853, *Beringeria plicata* Raf. Marub. do Forsk. Vitm. undulatum Sieber.—Palestina, Egypt, singular plant, stem simple with crowded whorls of flowers, leaves sessile round crenate rugose tomentose, calix large, limb scariose reticulate undulate. †

854, PHLOMIS *salvifolia* Jaq.—Syria, Sicilia &c, often blended with P. fruticosa.

855, *Phlomis sanicala* Sieber.—Palestina, tomentosa, fol. sess. obl. crenat. bract. subul. pungens, ut calicibus. †

856, *Phlomis reticulata* Raf. (pungens! Dec. non Wild.) caule scabro brachiato, fol. sessil. ovatobl. acutis glabris crenatis subtus 5nervis reticulatis, bract. subul. ciliatis, calicib. pungens —Podolia, large plant, leaves 2 or 3 inches, flowers short yellow. Sent me by Decandole with a wrong name like many other plants, blended with P. pungens of Persia having leaves petiolate lanceolate tomentose.

857, TRAMBIS *tuberosa* Raf. fl. tel. 770. Phlomis do L. O.—Sibiria.

858, HEMISODON *leonurus* Raf. fl. tel. 776. Phl. do L. Leonotis do Br.—Africa austr.†

859, BLEPHILOMA *amplifolia* Raf. fl. tel. 2 apx —Arkanzas. †

860, ORIGANUM *vulgare* L. var. *humile*—Sibiria. †

861, Var. *americanum*, fol. ovatobl. integris —Canada ad Pensylv.

862, Var. *rotundifolium*, fol. brevis ovato subrot. integris—Germania.

863, MAJORANA *fragrans* Raf. fl. tel. 766. Orig. majorana L. var. *obovata*, fol. sepe obov. obt.—Palestina.

864, *Majorana syriaca* Raf. Orig. do L.—Syria, Palestina.

865, AMARACUS (Moench) *dictamnus* Raf. fl. tel. 765, Orig. do. L.—Creta.

866, LAVANDULA *multifida* L.—Hisp. Maroco. Canaria.

867, *Lav. dentata* L.—Hispania.

868, NEPETA *crispa* W. P.—Persia. †

869, *Nep. pannonica* L.—Sibiria.

870, *Nep. levigata* Raf. glabra, fol. sessil. lanceol. serratis acutis, fl. racemosis vertic. bract. subul. pedunc. 3-5fl.—Illyria. sent me as N. nepetella (with tomentose cordate leaves) and also as N. tuberosa! pedal, leaves uncial, flowers white in compound racemes.

871, *Nep. heliotropa* Lam.—Persia. Sent me as N. graveolens! humble branched, leaves entire, flowers secund adscendent on axilary racemes longer than leaves.

872, *Nep. melissefolia* Marsh. Pers.—Tauria.

873, *Nep. longiflora* Vent. Pers—Persia. †

873, *Nep. teucrioides* Lam. incana L.—Syria &c, leaves subsess. ovate lanceol. not cordate, sinuate serrate white.

875, *Nep. origanifolia* Raf.. incana Sieber. cinerea pubens, fol. petiol. ovato subrot. subintegris obtusis, fl. paniculatis racemosis, calicib-glabris—Creta, pedal, leaves small, flowers white.

876, *Nep. tomentosa* Sieber, scordiotis? L. albo tomentosa, fol. petiol. latovatis vel subcord. integris, margine revolutis acutis, racemis paniculatis, calicib. subincanis—Creta, pedal slender. leaves remote small, flowers small white in verticillate racemes, peduncles multiflore.

877, *Nep. lupulina* Raf. tuberosa? nonnulis—pubescens, fol. sessilib. oblongis acutis serratis, basi truncatis, spica term. oblonga, bract. imbric. ovatis acum. scariosis nervosis—Lusitania. Leaves neither cordate nor tomentose as in N. tuberosa, pedal, leaves biuncial thin, flowers white, bracts whitish.

878, *Nep. violacea* L. colorata Hortis—Hispania, smooth, leaves subsess. ovate cordate serrate acute.

879, VLECKIA *nepetoides* Raf. 1808, Hyssopus do L—Novanglia ad Missouri—My G. Vleckia was ascertained in 1802 published 1808, it is *Lophanthes* of Benth. much later and name preocupied. see fl. tel. 786.

880, *Vleckia cordifolia* Raf. Hyssopus scrophularif. W. &c—Pensylv. Kentucky.

881, *Vleckia bracteosa* Raf. glabra, caule acutangulo atropurp. fol. petiol. ovatis subcord. acutis remote serratis, bracteis foliosis sess. ovatis acutis integris fl. longior.—Florida, leaves uncial, spike short oblong. It is subg. *Psalion*, see new fl. 979.

882, *Vleckia incarnata* Raf. caule angulis acutis puberis, fol. omnis ovatis lanceol. superis sessilib. argute serratis acum. subtus puberulis, spica basi interrupta, bract. lanceol. coloratis fl. brevior—Pennsylv. a beautiful sp. discovered 1804, found again lately, 3 to 4 feet high, leaves remote 2 to 4 inches long, bracts and calix incarnate, corols ochroleucous.

883, *Vleckia albescens* Raf. caule acutangulo apice piloso, fol. petiol. ovatis vel oblongis glabriusc. acum. dentatis, spica basi interrupta, bract. brevis scariosis albescens ut calix—Pensylv. ad Illinois, near last, perhaps a deviation, leaves variable, some quite narrow, flowers more or less white.

884, *Vleckia discolor* Raf. Hyssop. anisatus Nut. Stachys feniculum Pursh--Upper Missouri, leaves not cordate in my specimen,oblong remote serrate, beneath white smooth. †

885, ELSHOTZIA *cristata* W. P. Hyssopus ocymifolius Lam. Mentha ovata Cav.—Sibiria.

886. AMETHYSTEA *corymbosa* Pers.—Sibiria.

887, PERXO Raf. diff. Ocymum,cal. camp. 4fid. subeq. corolla ut Mentha, 4fida subequalis, *fl. racemosis vertic. subnudis*—the name is one of Dioscorides for Mentha—Type *Perxo polystachya* Raf. Ocymum do Mur. O. fol. longe pet. ovatis obtuse dent. racemis term. gracilis—Hindostan, branched 6 to 10 inches high, each branch has a raceme.

888, HEMISTEGIA *mexicana* Raf. fl. tel. 787, Salvia do L. O.—Mexico, remarkable G. with half a capsule around the seeds.

839, LASEMIA *coccinea* Raf. fl. tel. 792 Salvia grahami Benth—Mexico.

890, LARNASTYRA *urticifolia* Raf. fl. tel. 797, Salvia do L. O.—Delaware ad Kentucky et Alabama, a var. *ternifolia.*

891, *Larnast. clayloni* R. ib. Salvia do Mx. Maryland.

892, PIARADENA *fulgens* R. fl. tel. 791. Salvia do Cav. &c. Central America.

893, KIOSMINA *hispanica* Raf. fl. tel. 795. Salv. do L. Hisp.

894, Enipea *formosa* Raf. fl. tel. 799. Salvia do Lher. &c nodosa R. P.—Peru. †

895, Crolocos *pomifera* Raf. fl. tel. 2p. 93. Salv. do L—Creta, Syria.

896, Glutinaria (Heister) *sagittata* Raf. fl. tel. 2p 93, Salvia glutinosa L. O.—Italia, Austria.

897, *Glutinaria acuminata* Raf. caule apice villoso, fol. subsess. ovatis acumin. medio serratis, glabriusc. florib. vertic. bract. ovat. acum. integris brevis, calicib. villosis—Sibiria, leaves biuncial with a long acumen, flowers incarnate large. Sent me as Salvia glutinosa!

898, Sclarea (Heister) *acuta* Raf. hirsuta, fol. sessil. amplis ovatis acutis dentatis, spicis compositis obl. bracteis ovatis acum. ciliatis scariosis coloratis imbricatis—Sibiria? sent me as Salvia sclarea but quite unlike, leaves 4 to 6 inches, spike ample compound.

899, *Larnastyra* cuneifolia Raf. glabriusc. fol. radic. sessilib. cuneatis obtusis subdentatis, caule subnudo, fol. 2 obl. linearib. parvis subintegris, verticillis remotis, calicib. membranosis angulatis—Mts. Alleghany, habit of L. lyrata, but yet very unlike, smaller 8 or 10 inches high, corollas blue elongate.

FENIXANTHES Raf. diff. Salvia, cal. camp. gibbosus non angul. trifidus bilab. corolla tubulosa elongata basi attenuata, galea angusta emarg. labium brevis 3loba, stylus glaber, apex eq. bifidus, stam. galea eq. antheris linearib. appendicis filiformis, *fl. racemosis comosis coloratis*—another G. of the Salvides tribe, the name applies to the flowers totally scarlet even calix and bracts.

900, *Fenixanthes splendens* Raf. Salvia do Hortis. glabra fol. longe petiolatis ovatis longe

acum. media serratis, racemo apice comoso, fl. oppos. nudis, cal. pubescens. bract. term. ovatis acum. coccineis ut fl.—Texas, Mexico &c. fine plant, leaves biuncial, flowers scarlet large, often erroneously called Salvia coccinea.

This Century includes 24 new Genera, whereof 6 now described, and 36 new species, whereof 30 now first described; all of Labiate Order, which shall be continued hereafter with the Salvides family.

CENTURIA X.

ENDOGENOUS OR MONOCOTYLE.

901, ARGOLASIA *tomentosa* Raf. Lophiola aurea Sims, Conostylis americana Pursh, Torrey, Elliot, Nuttal, Eaton!—Florida ad Novaces. fine rare plant, put in an Australian Genus! Lophiola was employed, Argolasia is good: often blended with next by similar habit.

902, LACNANTHUS *tinctoria* Elliot, Heritiera, Gm. Mx. non alis, Dilatris heritiera Pers. Eat. Nut. Tor.---Novaces. ad Florida. Wrongly united to Dilatris S. Afr. G. known from last by shorter leaves, compact fl. triandrous &c.

903, CROCUS *aureus* Sims, floribundus Haworth—Hisp. Aquitania, beautiful sp. fl. golden.

904, *Crocus suzianus* Curtis b. m. 656—Italia, Grecia, fl. small yellow with purple stripes, leaves long.

905, *Crocus vittatus* Raf. bulbo unico reticul. fol. fl. eq. setaceis glaucis subcanalic. recurvis acutis, spatha membr. bivalvis acutis, tubo cor. eq. limbo vittato acuto---Austria, sent me as *Cr. vernus* which once included a dozen sp. near Cr. luzianus, fl. similar same size small pale grey with 3 to 5 ribbon like stripes dark purple: whole plant only 3 inches.

906, *Crocus grandiflorus* Raf. bulbo . . . fol. tubo fl. eq. lato inear. obtusis planis vittatis, spatha unifl. tubo brevior membr. ineq. obt. limbo amplo obtuso non striato---Sibiria ? sent me again as *Cr. vernus*, 6 inches high, flower very large, white or blue.

907, *Crocus biflorus* Curtis b. m. 845, Andrew rep. 362---Thracia, Phrygia, very distinct sp. once Cr. vernus also! fl. white base blue.

908, *Crocus versicolor* Curtis b. m. 1110---Orientalis.

909, *Crocus sativus* L. W. officinalis Sm. Pers---Orientalis.

910, Eubotrys *odorata* Raf. Hyacinthus racemosus L.---Europa australis, this G. was Muscari of Tourn. Ad. lately restored, but the name is inadmissible being formed of *Mus*-cari and *Musca*-ri ! !

911, *Eubotrys arvensis* Raf. Hyacinthus botrys L---Europa et Pensylvania.

912, *Eubotrys comosa* Raf. Hyac. do L.---Sicilia.

913, Hyacinthus *orientalis* L---Oriens, only type of the G. fl. white, rose or blue.

914, Lagocodes *nutans* Raf. fl. tel. 62 Hyacinthus cernuus et non scriptus L. Skilla cernua L.Sk. nutans Sm!---Europa, a plant shuffled by blunderers, with 3 names in Linneus !

915, *Lagoc. belgica* Raf. *Hyacinthus belgicus* Bory! fol. lato linearib. planis longissimis scapo equante, racemo obl. multifl. florib. cernuis, bracteis 2 ineq. scariosis coloratis ad pedic. eq. petalis angustis apice reflexis---Belgia &c, sent me by Bory, perhaps the Skilla hyacinthoides of Jaq. I describe it to compare, leaves 8-10 inches long, one third inch wide, flowers pale blue size of Hyacinth. †

916, PELOTRIS *Raf.* very singular monstruous deviation of Hyacinthus comosus L. with paniculate flowers chiefly abortive, without corolla, anthers sessile---Type P. *paniculatus* Raf. Hyac. do et monstruosis auctoris---Italia, very rare. †

917, GYROMIA *acuminata* Raf. Medeola virginica L. fol. caulinis obovatis obl. acum. trinervis, floralis ovatis acum.---Canada ad Louisiana, several var. *picta, pentaphyla, angustata &c.*

918, *Gyromia cuneata Raf.* fol. caulinis cuneatis obtusis vel retusis, floralis obovatis obtusis---Mts. Alleghanies, leaves narrow and short, biuncial. †

919, *Rayania cordata* O---Cuba.

920, *Ray. mucronata* O---Cuba. †

921, *Ray. quinquenervia Raf.* fol. petiol. longe lanceol. basi obt. apice obt. cuspidatis, subtus pallidis pilosis 5nervis, racemis fol. brevior---Cuba, leaves biuncial narrow, flowers minute. †

922, *Ruscus hypoglosus* O---Italia, Hungaria.

923, *Ruscus aculeatus* O---Eur. austr.

924, DANAE *racemosus* Moench Pers. Ruscus do L.---Grecia, Creta. †

SMILAX, I have divided this G. into 3 ever since 1825 neog. dividing *Parilax* and *Nemexis*, I shall now add 2 others *Aniketon*, *Dilax*. Ripogonum of Forster must be restored and the real *Smilax* includes 2 subg. *Oplax* more or less aculeate, *Luiste* inerme. The sp. of North and South America are in utter confusion. I shall begin to elucidate them. See Elliot and till 952.

925, SMILAX *O. hispida Raf.* ramis striatis hispidis basi teretis, apice angulatis, fol. corda-

tis petiol. tenuis concolor acutis 5nervis reticul. levigatis margine scabris --West Kentucky,very distinct by many flexible bristles instead of prickles, leaves very thin, well cordate, 2 or 3 inches long, edges very rough. †

926, *Sm. O. caduca* L. vel *dichotoma* R. twigs dichotome angular with strong prickles, not flat, leaves ovate acum. edge smooth, Lin. says stem terete, Canada to Carol.

927, *Sm. O. platoplis* Raf. 4angularis nonnulis non omnis auct.---ramis angul. 4gonis,aculeis paucis compressis, fol. ovatis vel subcord. brevi petiol. acum. cuspid. 5nervis reticul. levis marg. scabris, pedunc. petiolis longior 3-5fl. baccis nigris globosis---Pensylv. ad Kentucky et Carol. easily known by the few flat prickles, leaves 2 or 3 inches.

928, *Sm. O. glauca* Walt. Mx. sarsaparilla of bot. N. Amer. but not L. which is a South American Plant with hooked prickles and retuse evergreen leaves—Carol. to Kentucky—subangular, prickles few strait compressed, leaves uncial ovatobl. glaucous beneath acute mucronate trinerve peduncles longer than petiols, commonly 2-3flore, berries black ovate or obovate.

929, *Sm.O.rotundifolia* L.ramis subang.aculeis paucis rectis brevis, fol. brevi petiol. latovatis vel subrot. cordatisque, retusis vel obt. mucronatis, 5nervis vix reticul. subtus fulvo glaucis, margine glabro, pedunc. petiolis longior multifloris umbellatis, baccis globosis cerulescens—Canada to Carol. near last, blended by Walter, leaves larger often biuncial, Ombels of 10 to 15 flowers and berries.

930, *Sm. O. reniformis* Raf. rotundif. nonulis non L.—ramis 4gonis flexuosis, aculeis pau-

cis rectis validis subcompressis, fol. lato reniformis vel subcord. retusis vel acutis, levis margine glabris, 5nervis retic. subtus pallidis, pedunc. pet. longior 3-7fl. baccis globosis rubescens—New Jersey to Kentucky, remarkable by always some leaves broadly reniform, 4 inches broad, differs from *Sm. platoplis* by smooth edges.

931, *Sm. O. deltifolia* Raf. ramis teretis vel subcompr. aculeis parvis rectis, fol. brevipet. ovatis deltoideis obtuse mucronatis, levis margine glabris, 5nervis reticul. subtus pallidis, pedunc. pet. longior 5-8fl. florib. nutans—Allegh. Mts. and Wasioto Mts. probably the original Sm. *caduca* of L. but very different from 926, prickles very small, leaves deltoid, flowers large.

932, *Var. compressa*, stem compressed, leaves large triuncial, very thin quite deltoid or subcordate acute mucronate--Wasioto Mts. perhaps a peculiar sp. but I have not the flowers, as I mistook it for the last, prickles similar. †

933, *Sm. O. muricata* Raf. ramis 5gonis, muricatis aculeis brevis rectis, petiolis dilat. amplexic. fol. lanceol. basi acutis vel truncatis, apice acutis cuspid. perennis levigatis 3nervis vix retic. margine glabris, subtus glaucis—Florida, leaves biuncial, very different from last, yet blended with it by authors, stem often spotted with close short thorns. My specimens not in bloom.

934, *Sm. O. pandurata* Raf. (an tamnifol. nonnulis ?) ramis 5gonis muric. aculeis curvis, petiolis dilat. amplex. fol. perennis parabolicis panduratis, basi truncatis vel subcord. apice obtusis deinde acum. 3nervis vix reticul. margine glabris—remarkable sp. found by Collins in South New Jersey, stem virgate very prickly

below, axils with tendrils, leaves biuncial : the real tamnifolia has terete stem. †

935, *Sm. O. lomoplis* Raf. hastata W. P. N. E. non Jaq. aspera variabilis Lam. Pers.—ramis 4gonis, aculeis rectis compressis, fol. perennis petiolis nervisque et margine spinosis, lanceol. vel obl. acutis mucronatis, basi acutis vel truncatis dilat. auric. vel bilobatis, 3nervis reticul.—Carol. ad Florida, leaves biuncial. Mistaken by Lamark for a var. of aspera, and blended by the N. Amer. Botanists with the previous *Sm. acntata* of Jaq. Am. having stem inerme terete, leaves cordate hastate, long racemes &c.

936, *Sm. O. dilatata* Raf. ramis angul. sulcatis inermis, petiolis contortis, fol. perennis basi dilatatis truncatis, deinde oblongatis acutis, margine undulatis remote spinulosis, 5nervis reticul. nervo medio spinoso, subtus glaucis lucidis—Alabama, one of the sp. blended in *Sm. bonanox*, some warts on the stem instead of prickles, leaves somewhat as in last, broader still, not cordate nor auriculate. †

937, *Sm. L. compressa* Raf. inermis, ramis compressis sub4gonis, petiolis rectis, fol. ovatis deltoideis tenuis, acutis levis concolor, marg. glabris, 3nervis reticul. pedunc. pet. longior sub8floris—Alabama, very distinct, leaves thin not perennial uncial or over, stem realy compressed altho' angular 2 sides broader.

938, *Sm. L. heterophula* Raf. inermis, ramis sabangul. contortis, petiolis contortis fol. perennis coriaceis, cuneatis obovatisque vel ellipt. panduratisque, perennis coriaceis, apice obtusis cuspidatis, nonulis retusis vel obcordatis 3nervis reticul. marg. glabris undulatis ; pedunc. pet. subeq. apice capitatis, umbela 5-8fl. ferens

—Florida, found by Baldwin, who states it was wrongly blended with *Sm. hastata*, leaves uncial, flowers in a small ombel arising out of a small globular ball ending the peduncle as in *Parillax* and *Aniketon*, is it of that Genus? but flowers on long pedicels, sepals linear.

939, *Sm. L. membranacea* Raf. inermis, ramis 4gonis, fol. ovatis acumin. cuspidatis basi rotundatis tenuis sive membranaceis 5nervis non reticul. concolor, levissimis; pedunc. pet., subeq. 5-6fl. fl. longe pedic. nutans—Alabama, leaves large 3 to 4 inches very thin, flowers rather large campanulate as in most Amer. Sp. petals lanceolate.

940, *Sm.* L. *rhombifolia* Raf. inermis, caule subangul. fol. ovatis rhombeis vel sublanceol. vel subauricul. acutis perennis, trinervis reticul. glabris marg. levis—sent me as *Sm. china*, quite unlike it, more akin to *Sm. lanceolata* L. Sibiria? leaves uncial. †

941, *Sm. L. cynanchifolia* Raf. inermis, ramis gracilis subang. sulcatis, fol. cordatis acutis cuspidatis levigatis tenuis trinervis, axilis cirrhiferis,pedunc. geminatis 5floris, ad pet. longior—Sibiria ? sent me also as Sm. *China*, yet quite diffcrent, almost herbaceous, leaves uncial.

942, Sm. L. *farinosa* Raf. pseudochina L. (bad name) Car. to Florida, very useful cereal plant.

943, Sm. *L. lanceolata* L. Elliot—Carol. Florida, leaves realy lanceol. base acute, end obtusely acum. ombels multifl. on very short peduncles, berries red globose.

The Sm. cicindifolia, walteri, ovata, and alba, are doubtful Sp. not yet procured by me.

944, Parilax *laurifolia* Raf. neog. 36. Smi-

lax do L. Virg. to Louisiana, stem terete rugose leaves obl. thick coriaceous reticul. 3nerve, smooth acute at both ends, ombels multifl. subsess. on a capitate peduncle, formed of abortive fl. This G. differs fr. S*milax* by berry monosperm, one stigma, fem. fl. with 3 abortive stamens &c. Lofty vine.

945, *Parilax pumila* Raf. neog. 36 Sm. pumila Walt. Elliot, pubera Mx. humble prostrate Vine, leaves obl. cordate acute hairy beneath, ombels as in last, berries ovate acute red, Elliot calls them white—I suspect that Sm. lanceolata and heterophyla belong to this G. the ombels are similar.

ANIKETON Raf. diff. Smilax. *fl. capitatis* calix parvus tripartitus, masc. stam. 3 ? fem. calix brevissimis, baccis monosp. capitatis—near Parillax, habit similar but fl. not umbellate, the name is grecian for Smilax.

946, *Aniketon coriaceum* Raf. inermis, ramis angulatis flexuosis, petiolis amplex. fol. perennis coriaceis ellipt. obtusis vel retusis undatis glaucescens, glabris, 5 nervis, rugoso-reticulatis, capitulis petiolis subeq. brevissime peduncul. baccis globosis rubris—Cuba, found by Jalambic, leaves uncial, flowers and berries minute.

NEMEXIS Raf. neog. 37, distinct habit,herbaceous, some leaves opposite or vertic, flowers in multiflore ombels on long peduncles, sepals reflexed, stamens filiform, 6 sterile in fem. fl. 3lobate stigmas, berry 3loc. 6sp. by abortion 3-4sp. —The name means 6 threads, I had only 2 types in 1825, I now have 4 species if not 5.

947, Nemexis *nigra* Raf. neog. Smilax herbacea L. O. known by cordate leaves, pubescent beneath. acum. 5-7nerved, peduncles com-

pressed, berries black, ombels globose. often 100 flowers. N. Amer.

948, *Nemexis cerulea* R. neog. Sm. pedunc-ularis Mg. O.—It differs by leaves smooth ovate acute cuspidate glaucous beneath, berries blue, stem angular, fewer flowers. N. Amer.

949, Var. *oblongata*, differs by stem slender terete, leaves ovatoblong concolor—is it a sp? fl. not seen. Alleghanies.

950, *Nemexis elliptica* Raf. humilis angulosa, fol. apice quaternis, omnis ellipt. utrinque acutis concolor, 5nervis erosis; pedunc. compressis contortis fol. brevior, umbellis non globosis—Alabama, 6 to 12 inches high, leaves uncial, petiols as long, pedicels of fl. flexuose, petals lanceol. acute, berries not seen.

951, *Nemexis glauca* Raf. humilis, caule tereto gracilis, fol. alt. longe pet. deltoideis oblongis acutis trinervis utrinque levigatis glaucis, basi truncatis—Florida, neither fl, nor fruits, but evidemly distinct, leaves half size of others narrow uncial, glaucous on both sides, petiols filiform.

DILAX Raf. diff. Smilax, 6 sepals lanceol. reflexed, stam. 6 erect equal, fl. fem. stig. 2 ligulatis simplex, baccis ovalis compr. 2loc. 2sp. *fruticosus erectus, fol. alt. pedunc. longissimis umbellatis*—near Nemexis by peduncles, but differing as Clintonia does from Vagnera.

952, *Dilax muricata* Raf. (an Sm. tamnifol. nonulis?) caule basi fruticoso angulato, angulis muricatis, fol. brevi pet. ovatis, basi subcord. acum, 5nervis retic. margine scabris, glaucescens; pedunc. compressis longissimis, umbellis 10-15floris, baccis ovalis—Florida, quite different from Sm. muricata, perhaps one of the ob-

scure Sm. tamnif. flowers green on filiform pedicels. †

TRILLIUM L. of this fine American G. I gave a monograph in my Medical Flora 1830, with 34 sp. in 3 subg. *Sessilium*, *Anthopium* and *Delostylis*, I have since increased them still; but I lack a few of the Apalachian Mts. yet I shall illustrate here nearly 40 sp. and var. the numbers shall refer to my Monograph.

953, TRILLIUM *S. rotundifolium* Raf. mon 2—Lake Erie to Tennessee, many varieties.

954, Var. *orbiculatum* R. Kentucky.

955, *Tril. S. longiflorum* R. m. 1. Lake Ontario to Alabama.

956, *Tril. S. maculatum* R. m. 34. Florida to Illinois.

957, *Tril. S. membranaceum* R. m. 8. Ohio, Kentucky &c.

958, *Tril. S. isanthum* R. m. 3. Ohio to Arkanzas.

959, Var. *parviflorum* Raf. Kentucky.

960, *Tril. S. unguiculatum* Raf. 9, an recurvatum Beck? Kentucky. Missouri.

961, *Tril. S. angustifolium* Raf. m. 7, Kentucky.

962, *Tril. S. lancifolium* Raf. caule elato, fol. sess. lanceol. acutis trinervis patulis planis sepe maculatis, calicib. patulis vel reflexis, petalis erectis longior rubris unguic. lanceol.—Florida to Alabama and Apalachian Mts. stem often pedal leaves 3 inches, flowers uncial.

963, *Tril. S. stenanthes* Raf. caule maculato, fol. sessilib. ellipt. acum. planis patulis 5nervis concolor, petalis cal. vix longior utrinque erectis linearib. lanceol. elongatis acutis—striking sp. leaves 4 inches long, not spotted, flowers 2 inches, petals hardly different from calix green-

ishred. yet very distinct from Tr. viride of Beck. Arkanzas.

964, *Tril. S. cuneatum* Raf. caule elato, fol. sessilib. ovatobl. acutis trinervis planis concolor, calicib. erectis obl. petalis cuneatis duplo longior acutis purpurascens—Unaka Mts. of Cherokis, pedal, leaves 3 inches, flowers large akin to those of Tr. maculatum, but leaves very different.

965, *Tril. A. flavum* Raf. mon. 16. Allegh. Mts. very rare, add to descr. stem striate purplish, leaves biuncial nearly as broad, calix obl. acum. petals nearly twice as long obl. acute yellow. †

966, *Tril. A. undulatum* R. 18. Allegh. Mts.

967, *Tril. A. nutans* Raf. 15. erectum and rhomboideum of many botanists, like all the akin. Kiskatom Mts. of New York and Ohio, stem pedal, leaves 3 or 4 inches long and broad glaucous beneath, peduncle long strait, fl. large rosate.

968, *Tril. A. flexipes* Raf. caule sulcato, fol. sessil. obovatis acuminatis undul. 3nervis, pedunc. equante inclinato flexuoso, calix lanceol. acum. petalis albis eq. obl. acut. undul.—West Kentucky and Tennessee, rare, pedal, leaves 3 inches long, 2 broad, flowers middle size. †

869, *Tril. A. pictum* Pursh R. 12. Kiskatom Mts. Allegh. Mts.

970, *Tril. A. amblopsis* R. 13, Mts. Allegh. near to last, but very long obtuse acumen to leaves, calix and petals very narrow obtuse.

971, *Tril. A. acuminatum.* R. 11. leaves biuncial quite sessile and undulate, peduncle inclined, petals pale red—Apalachian Mts. Alabama &c. described by me since 1808,

972, *Tril. A. rhombifolium* Raf. caule levis,

fol. sessilib. rhombeis subobovatis longe acum. basi acutis. planis 3nervis, ped. inclin. elong. cal. lanc. acum. petalis brevior lanc. undul, obt.—Wasioto Mts. akin to many, but distinct from all, leaves thin, realy rhomboid, sides rounded, fl. medial, petals pale, red veined.

973, T*ril.* A. *brevipetalum* R. 19. Lake Erie, near T*r.* *flexipes*, peduncle flexuose, but petals short ovate, leaves broadly rhomboid.

974, T*ril.* A. *atropurpureum* Raf. caule brevis crasso sulc. purpurascens, fol. sessil. ovatis subrhombeis acum. planis 3nervis,pedunc. elong. erecto curvato, cal. et pet. subeq. ovato lanc. acutis planis—Mts. Allegh. often mistaken for var. of *nutans* even by myself, but perfectly distinct, 4 to 6 inches high, leaves biuncial, peduncle long, flower large, petals of a very dark purple.

975, T*ril.* A. *brevipes* Raf. caule striato, fol. sessil. ovatis ellipt. utrinq. acutis, undul. 3nervis ; ped. brevissimo erecto, cal. et pet. subeq. ellipt. obtusis undul—Alabama, stem 3 inches, leaves biuncial, not so thin as usual, fl. large, petals white. †

976, T*r.* A. *pusillum* Mx. R. 14. West Kentucky, near last, but smaller, 3 inches, petals incarnate.

977, T*ril.* A. *obovatum* Pursh R. 21,Canada, Ohio, near T*r.* *grandifl.* but leaves more rhomboidal nearly obovate, petals quite obovate, some fl. 3 inches wide.

978. T*ril.* A. *grandiflorum* Sal. R. 22. Mts. Allegh. Ohio, Illinois &c, many varieties.

979, Var. *roseum*, peduncle curved, flowers smaller rosate, Kentucky.

980, T*ril.* A. *lirioides* R. 23. Mts. Wasioto, West Pennsylv. and Virg. chiefly different from

Tril. grandiflorum by leaves petiolate.

921, *Tril.* A. *obcordatum* R. 24, Mts. Alleghany, rare. †

982, *Tril.* A. *declinatum* Raf. caule gracilis levis atropurp. fol. subsessil. oblongis vel ellipt. utrinque acutis, pedunc. brevis declin. cernuus, cal. lanceol. acut. recurvis, petalis obl. acutis patulis recurvatis—Alabama and Florida, it differs from Tr. catesbei by narrow leaves, and peduncles not drooping but nearly horizontal. Leaves biuncial, flowers white.

983, *Tril.* A. *catesbei* El. R. 28. Carol. leaves ovate and obov. peduncle curved drooping, petals rostrate.

984, *Tril.* A, *latifolium* Raf. 25, fig. 91 med. fl. Kentucky, fl. dark purple.

985, *Tril.* A. *balduinianum* Raf. caule filiformis, fol. petiol. oblongis acum. undul. pedunc. curvo nutans, cal. petalisque subeq. oblongis recurvatis undulatis—Florida, Georgia, discovered by Baldwin, by a note of his, Muhlenberg deemed it the real Tr. cernuum of L. near to Tr. declinatum but smaller slender, leaves small uncial fl. rather large incarnate; perhaps a var. of Tr. nervosum Elliot.

986, *Tril.* A. *medium* Raf. 30, Novanglia ad Virg. the Tr. cernuum of many of our botanists.

987, *Tril.* A. *glaucum* R. 31. Pensylv. to Alab. another Tr. cernuum!

988, *Tril.* A. *hamosum* R. 29. Pocono Mt. and Tuscorora Mts.

989, *Tril.* A. *nervosum* El. R. 27. Carol. Flor. stem pedal, leaves 3uncial, fl. large rosate very rare. †

990, *Tril.* A. *nivale* Riddell. Ohio, very distinct sp. 3 or 4 inches. leaves petiolate ovate

ellipt. obt. uncial, peduncle recurved, fl. white, similar to Tr. grandifl. quite pendulous, †

991, PARIS *quadrifolia* L. Europa, singular G. akin to the Trilliums, but with 4 leaves, sessile obov. acum. fl. erect. peduncled, 4 petals, 8 stamens.

992, STRATIODES *aloides* L. Europa, remarkable aquatic Genus.

993, ALETRIS *aurea* Mx. Carol. Alab. rare.

994, *Aletris lucida* Raf. fol. elong. lin. lanceol. acutissimis basi cuneatis, nervosis lucidis scapo angul. fl. confertis subsess. bract. filif. corollis fulvescens tubul. rugosis—Wasioto hills of Kentucky, leaves 4 to 8 inches long, stem bipedal. fl. nearly as in A. farinosa.

995, ALOES *variegata* O—Africa, the sp. with terete strait flowers must alone remain in this G.†

ATEVALA Raf. diff. Aloes perigonis incurvis sepe basi inflatis—this includes A. maculata, carinata, disticha, linguiformis, &c, with the 2 next. The name is oriental.

990, ATEVALA *imbricata* Raf. fol. ensatis margine uncinato spinosis, apice obtusis, scapo simpl. crasso, racemo obl. imbricato, bract. imbric. obl. obt. pedic. subeq. perigonis sepe medio contractis—African fine sp. leaves 6 inches thick glaucous, flowers quite large in a short thick raceme nodding. Sent me as A*l. perfoliata* name applied to 20 sp. †

997, A*tevala remotiflora* Raf. fol. ensatis inermis integris acutis, margine et carina membranaceis, scapo simplex gracilis, racemo remotifl. bract. reflexis lanceol. acutis brevis, perigonis horizontalis basi inflatis—Africa, sent me as A*l. listicha* quite unlike, leaves 4 to 6 inches, scape sesquipedal, raceme of 12 to 15 flowers far apart, smaller than in last, more curved and swelled.

998, KUMARIA Raf. (n. or) diff. Aloes, perigonis ovatis oblongis bilabiatis, 6nervis vel. 6gonis, lab. inf. reflexo, *fl. spicatis*—very distinct G. by habit and labiate flowers—type *R. spicata* Raf. Aloes retusa Auct (non spic. L.) Africa, leaves trigone acute not retuse, spike of few remote fl. quite sessile, bracts ovate acum. membranose.

999, *Kumaria cymbiformis* Raf. fol. ovatis brevis cymbif. acutis mucronatis, fl. subspicatis, bract. brevis ovat. acum. pedic. eq. perigonis brevis—Africa, leaves not trigone rather gibbose short,scape slender, fl. remote on very short pedicels, white with 6 strong nerves, when in full bloom ovate campanulate.

1000, TULISTA Raf. diff. Aloes, perig. tubul. 6gonis dentib. 6 ineq. vix labiatis *fol. verrucis vel maculis albis ferens*—another G. the flowers are racemose, the type is *T. margaritifera* Raf. Aloes do Auct. African. leaves which pearly warts, fl. small in a slender spicate raceme—a 2d sp. of this G. is Al. *variegata* of authors. †

All these Aloes are very rare in Herbals being so difficult to dessicate—there are 2 others G. yet blended in *Aloes*,—My *Papilista* with clavate fl. type A. *verrucosa*—and my *Succosaria* with campanulate fl. type A. *spicata* &c.

This Century includes 12 N. G. whereof 6 now first described,and 53 N. Sp. whereof 33 are now described.

Therefore this second part or series of the AUTIKON contains the illustrations of as many as 91 New Genera, of which 31 are now first described and nearly 220 new species, whereof 156 are herein described for the first time.

Addition—I omitted to state at Article of Euphorbia in 7th Century, that I had added 3 other Genera to the long account of the G. mingled in Euphorbia; they are in my Sylva Telluriana of 1838, articles 708 to 715, G. Endoisila, Peccana and Ditritra, all of Antilles, this last G. with 3 sp. is akin to Aplarina and Xamesuke.

Correction to 935, for previous *Sm. dentata* Jaq. read previous *Smilax hastata* of Jaquin.

Add 763. if the generic name of *Parmentiera* has been employed already for some other Genus, of which I have a faint idea, then this cluster of Solanums, that include the Patato, must be called *Artorhiza* meaning Bread-root, Raf.

END OF SECOND PART.

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In Cent. VII—Fedia, Valeriana, Odontocarpa, Mitrophora, Centranthus, Scabiosa, *Euphorbia*, Sesuvium &c.

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AUTIKON BOTANIKON

OR

BOTANICAL ILLUSTRATIONS,

by self figures of 2500 *trees and plants chiefly American.*

THIRD PART.—CENTURIES XI to XV.

BY C. S. RAFINESQUE, Prof.

Philadelphia 1815 *to* 1840.

CENTURIA XI.

ARB. ET FRUT.—TREES AND SHRUBS.

Autikon 1001, ICMANE Raf. perigono 4part. segm. ineq. linearib. involutis, apice dilat. cochleatis subrot. ferens antheris 4 sessilib. pistilum brevi pedic. ovat. stylus declinatus incurvus elongat. stigma capit. obliquatum. fruct. ut Protea vel Hakea. *frut. fol. alt. simpl. integris fl. axil. fascicul. umbellatis, involucratis, squamis persistens scariosis*—fine G. of Proteides family, near to *Hakea*, sent me under 2 erroneous names, my name was an ancient one of *Nerium*, the leaves being similar, 2 types.

Icmane nerifolia Raf. ramulis verrucosis fuscatis, fol. subsess. angustis lanceol. utrinque acutis glaucis integris coriaceis rigidis, umbellis sessilib, squamis obt.—Australia, leaves biuncial firm scattered crowded hardly nervose, flowers small fuscate like the twigs. Sent me by German Botanists as *Erica! incana* and *Banksia gibbosa!*

1002, *Icmane ? heterophyla* Raf. Banksia do Hortis. Ramulis rugosis apice pubens, fol. sessil obl. lanceol. vel cuneatis cuspidatis, integris glaucis coriaceis—Australia, not in bloom, but habit quite like the last, some leaves exactly similar, but all cuspidate.†

1003, HAKEA *pugioniformis* Cav. Pers. glabra of others, leaves alt. cylindr. cuspid. fl. axillary. Australia.

1004, BANKSIA *serrata* L. var. *latifolia*. Australia, leaves broadly cuneate, grossly serrate.

1005, *Banksia grandis* Hortis, fol. obl. pinnatifidis apice truncatis, pinnulis alternis deltoideis incurvo acuminatis, subtus rubiginosis, 5nervis reticulatis—Australia, singular large leaves 6—10 inches long, similar to some ferns.†

1006, EMBOTHRIUM *linearifolium* Cav. ramulis angul. fol. sessil. linearib: elongatis cuspidatis glabris margine revol. florib. term. corymbosis—Australia, nearest to *E. lanceolatum* of Chili, leaves slender biuncial, wrongly united to next by some.

1007, *Embothrium sericeum* Sm. W. cytisoides Cav. fol. ternis et simpl. alt. petiol. cuneatis cuspidatis integris, utrinque adpresso sericeis, fl. term. racemosis coarctatis—Australia, my specimen has all the leaves simple alterne.†

1008, PROTEA *rugosa* Raf. *pallens* Thunb. non L.) glabra, ramulis subangul. fol. alt. sess. cuneatis acutis callosis integris, utrinque rugosis glaucis, involucris elongatis similis vel lanceol. capitulis globosis—South Africa, leaves 1 or 2 inches rigid.

1009, *Protea pilosa* Raf. tomentosa Hortis non Thunb. dense pilosa, fol. imbric. obl. spatulatis obtusis callosis rugosis, involucris brevis similis, capitulis hemisphericis—South Africa,

leaves small one third of inch thick, the upper almost cuneate. †

1010, HURA *crepitans* L. O. South Florida, Antilles &c, leaves subcord. acum. dentate, spike oval. †

1011, TILIA *crenata* Raf. als. 190. Origon Mts.

1012, T. *longifolia* R. als. 191. Arkanzas.

1013, *T. glauca* R. als. 192. Mts. Alleghany.

1914, T. *fulva* R. als. 193, Ohio &c.

1015, *T. fuscata* R. als. 194, Virg.

1016, *T. riparia* R. americ. glabra, canad. of authors! Canada to Virg. banks of rivers.

1017, T. *cinerea* R. als. 195. Kentucky to Alabama.

1018. T. *umbellata* R. als. 196. pubescens of some, Allegh. Mts.

1019, QUERCUS *repanda* R. als. 66. Penns. Carolina.

1020, Q. *fusca* R. als. 67. N. Amer.

1821, *Q. versicolòr* R. als. 68. Carol. Florid.

1022, Q. *ferruginea* R. als. 69. Florida, Georgia.

1023, *Q. nitida* R. als. 70. Carol. Flor.

1024, *Q. aurea* R. als. 71. Arkanzas, Texas. †

1025, Q. *granulata* R. als. 72. Ark. Texas. †

1026, Q. *longifolia* R. als. 73. Allegh. Mts. †

1027, Q. *pandurata* R. als. 74, Alabama.

1028. *Q. carpinifolia* R. als. 75. Virginia.

1029, *Q. acuta* R. als. 76. Unaka Mts.

1030, Q. *angulizans* R. als. 77. Alab.

1031, Q. *mollis* R. als. 78. Allegh. Mts.

1032, *Q. retusa* R. als. 79. Alabama.

1033, Q. *prinoides* R. als. 80. New Jersey to Virginia.

1034, Q. *chincapin* Mx. als. 81. New Jers. to Carol.

1035, *Q. pagoda* R. als. 82, falcata var. E. Carolina.

1036, *Q. saberoides* R. 1808, als. 83. Flor.

1037. *Q. ilexoides* R. als. 84. Florida.

1038, *Q. heterophyla* Pursh O. Florida, see als. 87.

1039, Q. *dilatata* R. als. 88. Apalachian Mts.

1040, *Q. heteroloba* R. als. 89. W. Kentuky.

1041, Q. *gonoloba* R. als. 90. Kentucky.

All these are true Oaks. the following belong to subg. *Dryopsila* with double styles.

1042, *Dryopsila aprica* R. als. 92, blended in Q. imbricaria. Kent. Tennes. Illinois.

1042, *Dr. verrucosa* R. als. 93, imbricaria Mx. Carol. Louisiana.

1043, *Var. obliqua* R. als. 94, Florida.

1044, *Dr. laurina* R. als. 95. laurif. var. auct. Carol. Florida.

1045, *Dr. maritima* R. als. 96. not of all authors, Florida.

1046, *Dr. cuneifolia* R. als. 97. incana Bartr. Florida.

1047, *Dr. cinerea* R. als. 98, cinerea et virens of some. Flor. Carol.

1048, *Dr. virens* R. als. 99. Flor. Louis.

1049, *Dr. oligodes* R. als. 100. Louisiana.

1050, ELÆAGRUS *orientalis* O. Arabia, Persia

1051, *El. angustifolius* O. Hisp. ad Grecia.

1052. NEMELAIA Raf. Cal. 5part. eq. deciduus, petalis 5 connivens basi subcoalitis cuneatis obt. stam. 5 hypogynis ad petalis oppositis et eq. filam. lanceol. antheris linearib. pistil obl. villoso, stylo tereto, stig. capitato emarg. capsula obov. 2loc. polysp. *Frutex fol. sparsis laurinis, fl. corymbosis term.*—curious G. near to my *Junia* see 15, but both of family Myrsinides probably, by opposite stamens, the

name means *not a daphne*, having been sent me as one, although so unlike. Type.

NEMELAIA *laurina* Raf. ramulis flexuosis,fol. petiol. lato lanceol. coriaceis acuminatis, margine revolutis erosis, corymbis term. sessilib. pauciflóris, capsulis obovatis granulatis—sent me by a good botanist as *Daphne alpina* ! of Pyrenees Mts. locality probably as much mistaken as the name, unlike any European shrub by flowers, but habit of *Daphne laureola*,leaves biuncial, flówers white rather large, capsule very large. †

1053, DAPHNE *lateriflora* Raf. ramis cinereis obtusangulis punctatis, fol. fascicul. sess. obov. vel cuneatis subobt. integris levigatis, florib. ramis lateralis sparsis sessilib. pubescens—Alps of Carinthia, one of sp. blended in D. *alpina* which has leaves tomentose and flowers among the leaves : fl. white, leaves uncial. †

1054, D. *altaica* Pall. W. Altaic Mts. of Siberia, this was also blended once in D. *alpina*, but quite smooth even the flowers, leaves scattered not opposite as wrongly stated by some.

1055, D. *laureola* L. South Europe.

1056, D. *cneorum* O. Mts. of Europe.

1057, D. *odora* O. China.

1058, D. *collina* Duh. Sm. Pers. sericea Vahl. &c. Creta, Syria.

1059, D. *mezereon* O. Europe.

1060, D. *oleoides* O. Mts. of Creta.

1061, D. *gnidium* O. Italy &c.

1062, *Daphne*? *undulata* Raf. ramulis angulatis fuscatis, fol. alt. et opp. obov. vel subrot. undulatis retusis reticulatis glabris subsess—Sibiria ? sent me as D. *laureola*, although quite unlike, perhaps not even a Daphne, flowers lacking. †

1063, TARTONIA Raf. perigon. vix colorato urceolato 4fido, tomentoso sepe caliculatus, antheris 8 sess. duplice ordine perigynis, stylus subnullus, stig. capit. fruct. bacca sicca monosp. nuculacea. F*ruct. fol. imbric. sempervirens sessil. integris, fl. sessil. mixtis.*—In my flora telluriana 1135 to 1147 I reformed the Genera blended in *Daphne, Passerina, Gnidia &c,* yet omitted this, which differs from *Sanamunda* and *Pausia* by flowers and fruit, the name derives from Tartonraira, 3 types

Tartonia ovatifolia Raf. Passerina hirsuta (of some, perhaps not all) ramis tomentosis, fol. ovatis carnosis obt. extus glabris rugosis, intus tomentosis, florib. subterm—Creta, undershrub, leaves minute erect densely crowded, flowers whitish outside, yellowish inside.

1064, *Tartonia obovata* Rnf. Daphne tartonraira L. Passerina do Lam. Ramis basi nudis scrobiculatis, apice rufo tomentosis, fol. obov. obt. canis pubens crassis nervosis patulis, fl. axil. adgregatis—South of France, Spain &c, branches knobby by large tubercles when leaves fall, these semiuncial crowded but spreading, fl. small pale canescent.

1065, *Tartonia cuneifolia* Raf. ramis verrucosis glabris, fol. cuneatis obt. patulis crassiusculis glaucis supra glabris, subtus subtoment. fl. axil. et term. adgreg.—Italy and Greece, blended with last and sent me as such, but larger leaves almost uncial narrow and thinner, flowers larger, twigs smooth &c.

1066, SANAMUNDA *grandiflora* Raf. Passerina do L. Africa, in this G. of Clusius and Adanson, the flowers are as in Daphne, but the fruit not a berry.

1067, *Sanam. axillaris* Raf. Passerina late-

riflora Hortis, ramis fuscatis rugosis, fol. imbric. sess. ovatobl. acutis adpresso pilosis crassiusc. fl. axil. solit. sessilib. fol. equante—South Africa, small shrub, leaves and fl. one third of inch long.

1068, *Sanum. adpressa* Raf. Passerina filiformis L. non omnis auct—ramulis rectis toment. fol. adpressis imbric. sparsis oppositisque, linearib. carinatis crassis glabris obt. florib. term. spiciformis imbric. axil. fol. longior—Central Africa, habit of Heaths, leaves ashy, flowers incarnate, nothing filiform in this nor next.

1069, *Sanam. umbellata* Raf. Passerina filif. nonnulis! non L—ramulis flexuosis rugosis hirsutis, fol. densis sparsis patulis glabris linearib. planis acutis rigidis uninervis, umbelis terminalib. sessilib. 5-10 floris fl. pubens—South Africa very distinct from last, although sent me as the same by a good botanist! leaves green very crowded but not imbricate, flowers white or incarnate rather large forming very pretty ombels.

1070, *Sanum. subulata* Raf. ramulis virgatis hirsutis, fol. imbric, subul. acutis sparsis scabris, fl. term. subcapit. involucris lanceol. fl. subeq. adpresso piïosis—South Africa, sent me by two botanists as *Gnidia pinifolia*, but not a Gnidia, having no petals, very near the last, even Linneus had 2 different plants as *Gn. pinifolia*! it is neither of them; flowers incarnate hirsute, 7 to 15 in a small head.

1071, STELLERA *passerina* L. Europe, habit of Thesium.

1072, STRUSIOLA *virgata* L. South Africa. I have modified the *Struthiola* derived from *Struthium*: I had wrongly called it *Dessenia* at 62; but my G. *Dessenia* sylv. tel. 1145, is formed

by the decandrous Gnidias, and 62 must be *Strusiola scoparia*. *Griselinia* of Forster must be restored instead of Scopolia 1146 fl. tel. since the original *Scopolia* is a good genus, as I have shown at 791.

1073, MELALEUCA *linearifolia* Sm, Australia.

1074, OZANDRA Raf. (branched stamens) diff. ad Melaleuca, stam. phalangis 5 ad petalis oppositis planis intus ramosis *fol. oppos.*—singular N. G. and character, indicating a transition to the opposition of isomeral stamens; 3 types, the O. or *Mel. thymifolia* and the two next.

Ozandra hyssopifolia Raf. Melaleuca do Sm. Australia.†

1075, *Ozandra granulata* Raf. Mel. thymifolia nonnulis non Sm. ramulis gracilis virgatis biangulatis, fol. adpressis linearíb. acutìs extus convexis enervis granulatis, intus concavis glabris, spicis 4fl. lateralis, calicib. granulatis obt.—Australia, leaves minute one fourth of inch, flowers red small, the glandular granulations of leaves and calix very striking, protuberant like minute tubercles. Sent me as *M. thymif.* that differs by many characters. †

1076, LEPTOSPERMUM *scoparium* O. Australia.

1077, *Lept. thea* O. the Australian Tea.

1078, *Lept. juniperinum* Sm. Australia. †

1079, *Lept. ambiguum* Sm. Australia. †

1080, MYRSINE *africana* L. South Afr.

1081, *Myrs. retusa* L. Azores. †

1082, SCHIZANDRA *coccinea* Mx. Florida, Carol. very rare. †

1083. PHILADELPHUS *grandiflorus* Wild. Apalachian Mts. twigs patent sub4gone 1-2flore often blended with *Ph. inodorus.*

1084, *Phil. villosus* Mg. hirsutus Nut. West

Pensylv. and New York, branches virgate pubescent 4gone, fl. rather small subaxillary.

1085, *Phil. discolor* Raf. ramulis teretis grabris palens, fol. latovatis vel subcord. acum. subserratis supra glabris, subtus canescens pilosis fl. term. subracemosis, stylis coalitis—Apalachian Mts. Carol. &c, very different from last by twigs. leaves and flowers larger.

1086, *Phil. coronarius* L. Europe, near the last, but twigs striate leaves acute at base. 4 styles &c.

1087, *Myrtus biflora* L. Cuba, Jamica.

1088, *Myrtus italica* Raf. sylv. tel. 637, one of the sp. blended in M. comunis, Italy, Sicily, Spain &c.

1089, Fusticus *glabra* Raf. new fl. 580. Morus et Broussonetia tinctoria of some, but different from *Fusticus vera* 581. I have in my new flora shown that this Genus is peculiar and indicated 4 types. This is from Cuba and South Florida.

1090, Broussonetia *papyrifera* Duh. Morus do L, see my new fl. 584, and my monograph of Mulberries—Japan and Polynesia.

1091, Toxylon *maclura* Raf. new fl. 578, pomiferum Raf. 1817, Maclura aurantiaca Nut. 1818, Brousson. tinct. of Kunth and Torrey! described and well named by me one year before Nuttal, and Maclura has another Genus—Texas, Arkanzas &c.

1092, Morus *rubra* L. Raf. monogr. 17. North America.

1093, *M. reticulata* Raf. mon. 18. Ohio to Tennessee.

1094, *M. riparia* R. M. 22. Susquehannah R.

1095, *M. parvifolia* R. m. 23, Apalachian Mts.

1096, *M. vitifolia* Raf. scabra R. m. 20, but not of Wildenow, which is the M. canadensis, here the leaves are deeply trilobe, with interjected large teeth, ample cordate thin roughish, lobes ovate acum. equally serrate—Louisiana.

1097, *M. petiolaris* R. m. 10. laciniata? Miller. Polynesia?

1098, *M. multicaulis* Perotet, Raf. mon. 9. China &c, it has a var. with crisp concave leaves.

1099, *M. italica* Lam. R. m. 2. Italy.

1000, *M. cretica* Raf. m. 4, Creta, sent me as M. byzantina, but very different by granular leaves &c. † In my complete monograph of this G. I have ascertained 25 sp. whereof 7 of North America, and 16 of the old continent.

This Century contains 8 New Genera whereof 4 are now first described, and 55 new species whereof 12 now described, all trees and shrubs.

CENTURIA XII.

1101, AERUA *tomentosa* Forsk. deserts of Arabia and Nubia.

1102, NEVROLIS Raf. cal. duplex scarioso fuscato persistens, ext. 2-3 sq. ineq. brevis, internus 5part. segm. ineq. lanceol. acut. carinatis 3-5nervosis. Stam. 3 subul. erectis, liberis, antheris utrinque emarg. Pistilum ovato conico, stylo brevis, stig. obt. simplex. capsula unilocul. monosp. oblonga, *Herba, fol. alt. pet. stipulis o, fl. glomer. axil. et term*—I must add this G. to the numerous G. that I established in my flora tellur. ont of the Celosides and Achyranthides tribes, very peculiar by stamens, nervose calix, whence the name, monotype.

Nevrola fuscata Raf. (Celosia virgata Hortis.) glabra caule simplex angul. fol. longe petiol. ovatis acum. integris, basi acutis decurrens

in pet. glomerulis axil. et term. subsessil. pauci-floris—Borneo or Moluccas? not virgate, upper leaves gradually smaller and snbsessile, remarkable shining brownish flowers. †

1103, BLUTAPARON *breviflorum* Raf. new fl. 845, Illecebrum vermicul. Mx. non L. Florida.†

1104, BUINALIS *floridana* Raf. new fl. 830, Herniaria Americ. Collins. Florida.

1105, HERNIARIA *besseri* Hortis, prostrata hirsuta, fol. obl. linearib. acutis ciliatis, glomerulis sessilib. 3-5floris, fl. hirsutis canescens—Carpathian Mts. one of the sp. blended in *H. hirsuta*, leaves patent or reflexed, one third of inch long. †

1106, *Herniaria laxa* Raf. prostrata dichot. pubens, caule basi glabro, fol. lineari cuneatis obtusis ciliolatis, glomerulis laxis 2-5fl. fl. subsess. hirsutis canescens—Podolia, another blended sp. in *H. hirsuta*, that has leaves ovatoblong, nearer the last, leaves longer often uncial.

1107, *Herniaria glabra* L. Europe.

1108. AMORGINE *albescens* Raf. new fl. 842, Florida. †

1109, OPLOTHECA *floridana* Nut. O. Florida.

1110, CELOSIA *pumila* Raf. humilis glabra, fol. petiol. ovato lanceol. acum. integris, stipulis nullis, spicis term. ovatis conicis acutis albis—Florida, only 3 to 4 inches high, simple or branched, each branch with a pretty white spike.

1111, C*el flexuosa* Raf. glabra erecta caule flexuoso simplex sulcato, fol. petiol. ovatis acum. basi decurrens, stipulis nullis, spicis term. obl. conicis obt. albo carneis, interdum spiculis minimis similis axilaris—Asiatic, semipedal, leaves large.

1112, *Cel. cordata* Raf, glabra, caule erecto

fuscato teres, fol. longe petiol. ovatis cordatisque acum. basi sepe obliquatis, stipulis nullis, axilis foliosls, spicis ovatobl. axil. et term. acutis carneis—East Indies, large plant bipedal, leaves ample, spikes small. †

1113, *Cel. rosea* Raf. glabra, caule stricto angul. fol. brevi petiol. ovatobl. acum. basi acutis; stipulis nullis; spicis axil. subpedic. petiolis longior, ovatis acum. spicis term. major oblongis roseis—Ceylon, fine sp. pedal, annual as all, flowers of a pretty rose color. All these are blended in our gardens with *Cel. cristata* a very different luxuriant sp.

1114, Gomphrena *ciliata* Raf. (globosa nonulis non L.) caule sub4gono pubescens, fol. subpetiol. ellipticis acutis furfureis ciliatis, capitulis globosis longe pedunc. involucris diphylis ovatis acum.—East Indies, blended in gardens with *G. globosa*, leaves 3 to 4 inches long, flowers of a pale flesh color almost fulvous.

1115, *Gomphr. lanceolata* Raf. ramis striatis hirsutis, fol. petiol. angustis lanceol. acutissimis glabriusc. ciliolatis, capitulis sepe term. globosis depressis, involucris nullis—Brazil, sent me as *G. brasiliensis*, but very different, small plant much branched, leaves uncial, some almost linear, heads white very small.

1116, Plagidia *rufa* Raf. new fl. 840. Anychia hernarioides? Mx. Florida.

1117, Argyrocoma *imbricata* Raf. new fl. 839, Paronychia argyrocoma Nut. Anychia do Mx. Mts. of Virginia.

1118, Anychia *divaricata* R. n. fl. 835. Allegh. Mts.

1119, *Anychia lateralis* R. n. fl. 836. Kentucky hills.

1120, *A. fastigiata* R. n. fl. 837. ditto.

1121, *A. nudiflora* R. n. fl. 838. Florida.

1122, *A. capillaris* Nut. New England to Kentucky, all these were blended in *Qaeria* or *A. canadensis.*

1123. PARONYCHIA *nitida* Gaertn. Illecebrum paronychia L. South of Europe, Sicily.

1124, *Par. polygonifolia* Dec. Illec. do Vill. Mediterranean, as far as Palestine.

1125, *Par. cuspidata* Raf. glabra, caule prostr. dichot. filif. fol. linearib. cuneatis cuspidatis margine scabris, axilis paucifl. fl. argenteis fol. brevior argenteis cuspidatis—Portugal? sent me as *Illecebrum paronychia*, quite unlike, slender not capitate.

1126, *Par. hispanica* Dec. Illecebrum narbonense Vill. Pers. Spain to Hungary.

1127, ILLECEBRUM *verticillatum* L. Europe.

1128, *I. filiformis* Raf. glabrum prostrat. caulib. filif. ramosis. fol. remotis obov. obtusis, verticillis paucifl. fol. brevior calicib. cuspidatis —West Europe blended with last which has crowded leaves ovate and rounded, flowers as long &c, fl. white in both,

1129, *I. spinosum* Raf. caulib. prostratis geniculatis, fol. linearib. acutis margine scabris, verticillis paucifl. brevis, calicib. spinosis—Spain, sent me as *I. alsinefolium*, which has ovate leaves with scariose bracts, leaves quarter of inch, fl. greenish. †

1130, *I. lanatum* Raf. ramosa canescens, ramis virgatis, fol. alt. petiolatis obov. acutis fimbriatis, verticillis glomeratis lanatis axil. calicib. obt.—Sibiria near Jakut, very different from the others, leaves not opposite, perhaps of a peculiar G. but it is too difficult to analyze the minute wooly flowers.

1131, CADELARIA *sicula* Raf. fl. tel. 541. Si-

cily and North Africa, very different from the other sp. blended in *Achyranthes argentea* and *aspera* see my flora: this is a small shrub, leaves petiol. ovate lanceol. acum. branches terete divaricate, flowers reflexed greenish white.

1132, *Cadelaria argentea* Raf. Achyranthes do L. non omnis, ramis 4gonis, fol. petiol. ovatis acum. scabris ciliolatis subtus glaucis, spicis axis hirsutis, fl. glabris reflexis argenteis—South Africa, near last but twigs 4gone, leaves larger broader. †

1133, Mollia *diffusa* Dec. very singular G. habit of *Mollugo*, dichotome, leaves vertic. spatulate acute, fl. white in compound glomerules, secund and recurved. Sent me by Decandole without locality. †

1134, Lahayea *memphitica* Raf. Polycarpea do Delille. Egypt, banks of Nile. This G. was miscalled *Hagea* by Vєntenat, being dedicated to Lahaye. *Polycarpea* is inadmissible being posterior and identic to *Polycarpon*! this is hairy with leaves oboval, flowers congested.

1135, *Lahayea fragilis* Raf. Polyc. do Del. Egypt at the pyramids, leaves minute obl. very short, fl. lax.

1136, Steiremis *ciliata* Raf. new fl. 843, Illecebrum polygonoides Mx. Florida to Louisiana.

1137, *Steiremis? heterophyla* Raf. Achyranthes axillaris Sieber. glabra, caulib. sub4gonis decumbens, fol. sessilib. oblongis vel rhombeis, lanceol. vel cuneatis acutis, glomerulis axil. paucifloris parvis—Egypt, leaves often uncial, fl. white very small. Certainly not an Achyranthes, habit quite like the last.

1138, ANTHIRINUM L. Pers. *Linaria* of nearly all others, bad name derived from *Linum*; the Linnean G. was absurd, this was re-

stricted to the sp. with spur and valvate capsule; but has yet several anomalies. *Nemesia*, *Anarhinum*, *Peloria*, and *Asarina* have been divided by some botanists, I must further propose the G. *Termontis*, *Bucranion*, *Tursitis*, *Antrizon*, *Probatea*, *Misopates* &c, and indicate besides 4 doubtful G. not seen by me—1 *Ucnopsolon cordatum* Raf. Antir. hexandrum Pers. Linaria hexandra Wild! probably not even of this tribe, 6 stamens never occur among didynamous plants, is it a pelorian G. near to *Tursitis*?—2 *Porfuris pinnatifida* Raf. Antir. pinnatum L. habit quite unlike—3 *Ditulium pinnatum* Raf. Antir. unilabiatum L. differing from *Termontis* by cor. with 2 warts for upper lip, habit peculiar—4 *Etornotus* (cordate back) diff. ad *Termontis* cal. inequaliss. lac. sup. cordata magna, ceteris lanceol. cor. lab. sup. bifido, inf. trifido, *fol. carnosis alt. fl. axil*, type E. *persicus* Raf. Antir. papilionaceum L.

Antirhinum canadense L. P. Linaria do W. &c—Canada to Carolina, several var. *simplex. ramosum, surculosum, gracile &c.*

1139, Var. *assurgens* Raf. fol. imbric. crassis elongatis, fl. majusculis atropurp. South New Jersey, Virg.

1140, *Ant. genistifolium* L. P. Sibiria ad Helv.

1141, *Ant. simplex* Pers. excl. syn. Europa, stem. simple, base surculose, raceme pauciff. capitate. †

1142, *Ant. alpinum* L. P.—Alpis.

1143, *Ant. triste* L. P. Hisp. Maroco.

1144, *Ant. parviflorum* Jaq. non Desf. stem branched virgate, fl. racemose small, capsule 6valve. South of Europe, would *A. junceum* be a better name?

1145, A*nt. minor* L. P. Europa.

1146, A*nt. linaria* L. P. Linaria vulgaris &c. Europa et Amer. bor. several var. *ramosa, simplex, latifolia &c.*

1147, A*nt. linifolium* L. P.—Italia.

1148, A*nt. bipunctatum* L. P. Hisp. It.

1149, A*nt. sparteum* L. P. Hisp.

1150, A*nt. monspesulannm* L. P.—Gallia Austr.

1151, A*nt. reflexum* L. P.—Barbaria, Sicilia.

1152, A*nt. purpureum* L.P.--Vesuvius,Etna.†

1153, A*nt. reticulatum* Sm. Pers. pinifolium Desf. Lam.—Portugal, Sicilia, Barbaria.

1154, A*nt. pelisserianum* L. P. Italia. †

1155, A*nt. triphylum* L. P.—Sicilia, Grecia

1156, PELORIA *linaria* L.—Europa, wonderful generic deviation, supposed to be produced by A*nt. linaria*, and refered to it as a var. by most botanists, although deemed a peculiar G. by Lin. which I restore as type of the *Pelorian* Genera, of which I have observed several. This has a regular corolla with 3-5 spurs and 3-5stamens, very rare. †

1157, P*eloria genistifolia* Raf. Europa, produced by A*nt. genistif.* still have rare. †

1158, TURSITIS Raf. *Elatine* Mench non L. subg. Cymbalaria Pers. (prox. Cymbaria!) diff. Antirrhinum, capsulis subunilocularis 2-4-valvis, valv. integris,sem. centralis. *caulib. procumbens, fol. alt. dilatatis, fl. axil.*—deserving to be a G. by striking habit and capsule.

Tursitis cymbalaria Raf. A*nt. do* L. P.—Europa Austı. In this the capsule has 4 valves: perhaps a Genus! C*ymbalina rupestris* Raf.

1159. *Tursitis elatine* Raf. A*nt. do* L. P.—Europa : the capsule is bivalve and less unilocular, as in all the next sp.

1160, *Tursitis flifera* Raf. pubescens, caulib. punctatis prostr. petiolis brevis, fol! ovatis sagittatis acutis, pedunculis filif. flexuosis ramosis bracteis ovatis, calicib. ovatobl. subeq. caps. bivalvis—Louisiana, Alab. blended with last by our botanists, differing by smaller leaves, peduncles long slender branched bracteate, as in the next.

1161, *Tursitis egyptiaca* Raf. Antir. do L. P.—South Europe, North Africa, differs from last by being smoòth suberect, leaves narrow hastate, fl. minute. †

1162. *Tursitis rotundifolia* Raf. Antir. spurium L. P. non omnis? pilosa, caulib. assurgens, fol. subsessilib. ovatis subrotundis obtusis integris vel subdent. pedicelis breviusc. calicib. ovatobl. calcar obt. caps. bivalvis—Europe,stem 3 to 6 inches, leaves uncial, the name of *spurium* is absurd and has been applied to the 2 next also.

1163, *Tursitis flexuosa* Raf. pilosa, caulib. prostr. flexuosis, fol. subsess. cordatis acutis integris, pedic. fol. longior, calicib. ovatis, calcar acuto, cal. bivalvis—Europa, stem elongate snakelike, leaves small, 3 to 5 lines long. thus quite unlike the last.

1164, *Tursitis reniformis* Raf. pilosa, caulicib. prostr. rectis, fol. brevi petiol. reniformis integris obt. mucronulatis, superis acutis hastatis. pedic. fol. brevior, cal. ovatobl. subeq.—Sicily, long stiff stem, densely pilose, leaves often one inch broad, shorter than broad.

1165, PROBATEA Raf. Asarina Moench (ad asarum) diff. *Antirhinum*, corolla basi saccata, ventricosa clausa, caps. 2valvis, valvis integris, sem. centralis muricatis—*Prostrata, fol. oppos. pet. fl. axil.*—very distinci G. habit

of Cymbalaria, flowers of Termontis, several blended sp.

Probatea grandiflora Raf. Antir. asarina L. Orontium do Pers. Asarina cordifolia Moench —villosa, fol. renif, vel. cord. crenatis, pedunc. pet. brevior, calicib. lanceol.—Helvetia, very rare, flowers very large white, lips purple, some 2 inches long. †

1166, *Probatea lobata* Raf. pubescens, fol. subrot. vel dilat. basi subrenif. lobatis, lobis dentatis acutis ciliatis, pedunc. pet. eq. calicib. linearib—Sibiria, leaves large ultra uncial, flowers small, less than one inch, incarnate or purplish. †

1167, MISOPATES Raf. diff. Antirh. cal. digitatus lateralis, cor. basi gibbosa, apice hians, caps. obliq. ovata gibbosa, apice biporosa, poris semivalvatis vel 3dent. *fol. alt. sessil. fl axil.* —blended by authors with *Termontis*, altho' unlike in habit &c.

Misopates orontium Raf. Antirh. do L. Orontium arvense Pers.—Europe and boreal America? leaves linear lanceol. fl. subspicate subsess. calix very unequal linear, capsule hirsute &c.

1168, TERMONTIS Raf. Orontium Pers. non L. Antirhinum W. Dec. Those who adopt the *Linaria* of old, commonly retain the Antirhinum for this. Persoon unfortunately employed the name of *Orontium*! belonging to another G. *Termontis* is an old Grecian name of the very plant, and all my N. G. of this group have similar classical names.

Termontis racemosa Raf. Antirh. majus L. Dec. Orontium do Pers. Europe, leaves lanceol. obt. fl. racemose. pedicels longer than bracts, flowers purple.

1169, *Termontis tricolor* Raf. fol. petiol. ovatis lanceol. acutis fl. subspicatis, ped. bract. eq. calicib. ovatobl. obt. pubens, capsulis ovatis pubens cal. longior—Apenines of Italy, often blended with last, but leaves broader, fl. still larger white with red and yellow mouths, very handsome. †

1170, *Termontis sicula* Raf. Antirh. do Wild. &c, Sicily leaves linear, fl. subspic. ped. shorter than linear bracts, fl. yellow. †

1171, BUCRANION Raf. diff. Termontis et Antirhinum, cal. urceolatus semi 5fidus ineq. cor. tubulosa hians, semi 5loba, lobis subdentic. stylus exsertus, stig. capit. caps. 2valvis? *Aphylum, ramis florisq. oppos.*—very distinct G. the *Antirh. aphylum* L. probably belongs to it, but has a capillary scape: it may be called *B. capense* Raf.

Bucranion spicatum Raf. caule ramoso teres scabriusculo, fl. spicatis oppos. sessilib. bracteis caducis obl. obt. brevis— Africa? sent me mixt with akin plants, annual triuncial. fl. purple, tube of corolla thick exceeding the calix.

1172, ANTRIZON Raf. diff. Antir. corolla sacata calcarata, calcar conico obt. faux hians, lab. sup. bifidum, inferum trifidum, stylus exsertus, stigma capit. caps. compr. emarg. 2valvis *fol. sess. opp. et alt. fl. racemosis alt. vix bract*—another G. blended, medial to many, habit of *Antirhinum*. Monotype? is *A. miranthes* a sp. of it?

Antrizon tenuifolium Raf. glabrum, ramis sepe oppos. virgatis fol. opp. alternisque linearib. acutis racemis gracilis, bracteis brevissimis, calicib. obl. capsulis brevior—sent me as *A. orontium*! leaves uncial or less very narrow. flowers purple small. Sibiria?

1173, MELAMPYRUM *lineare* Lam. americanum Mx. Pensylv. ad Carol. leaves sessile linear acute, fl. axil. secund.

1174. *Mel. lanceolatum* Raf. caule ramosissimo brachiato, fol. petiol. lanceol. obtusis integris, bracteális sessil. dilatatis cristatis acutis—Mts. Alleghany, New Jersey to Kentucky. Often mixt with the last as a var. but apparently distinct, although fl. similar white with yellow tips, stem 1-2pedal, leaves 1 or 2 inches long.

1175, *Mel. radiatum* Raf. caule stricto simplex sulcato pubens, fol. sessilib. scabris, ovatolanc. acum. repandis, superis cordatis acum. basi cristato radiatis, fl. axil. secundis---Sibiria, sent me as M. *sylvaticum*, see next, leaves uncial, longer and narrower below, fl. purplish. †

1176, *Mel. nemorosum* L. Europe, it differs from last by stem smooth terete, leaves lanceol. upper entire or subdentate.

1177, *Mel. alpestra* Pers. sylvat. L. Alps, leaves lanceol. lower cuneate, upper linear.

1178, M*el. pratense* L. Europa.

1179, M*el. cristatum* L. Europa borealis.

1180, SCROPHULARIA *pectinata* Raf. caule obtusangulo atropurp. fol. petiol. ovatolanc. utrinque acutis pectinato serratis vel sinuato laciniatis superis alt. paniculis corymbosis, bract. linearib. integris---New Jersey and Long Island 2 or 3 feet high, stem thick dark purple, flowers purplish.

1181, *Scroph. lanceolata* Pursh &c. New York to Virg. differs from last by acute angles, leaves lanceol. inequaly or doubly serrate.

1182, *Scr. marilandica* L. (or glauca R.) Canada to Carol. differs from *pectinata* by leaves ovate or subcordate glaucous beneath, simply serrate petiols ciliolate, fl. paniculate

purplish, bracts oblong. Several var. *pumila, latif. obliquata, longifolia &c.* All our Amer. sp. were once blended in this!

1183, *Scr. diversifolia* Raf. caule ramoso obtusang. ramis acutang. fol. petiolis levis, duplicato serratis subacum. infimis cordatis, medialis ovatis obliquatis,superis lanceol. equaliter serratis, panicula laxa, bracteis linearib—Delaware to Virg. in woods, stem 4-6pedal, fl. green, leaves ample, some semipedal.

1184, *Scr. adenopa* Raf. caule simplex acutang. fol. ovatobl. acum. inequaliter serratis basi acutis vel subsagittatis, panicula laxa,bracteis subul. brevis, pedic. pilis glanduliferis nigris obsitis—Kentucky, Ohio &c, stem 2-5pedal, fl. dark purple.

1185, *Scr. serrulata* Raf. caule obtusang. ramoso, fol. brevi petiol. lanceol. elongatis utrinque acutis equaliter serrulatis, paniculis laxis, bracteis brevissimis subulatis—Mts. Allegh. it has more lanceolate leaves than the sp. of Pursh,they are narrower longer,slightly serrate. stem and bracts also different,

1186, *Scr. dimidiata* Raf. caule simplex obtusang. fol. brevipetiol. ovatobl. acute obliquatis dimidiatis, inciso serratis, subtus glaucis, paniculа remote racemosa, bracteis subulatis—Carol. Florida, pedal, leaves remote biuncial, fl. pale. It differs from *S. maril.* by leaves bracts &c.

1187. *Scr. nodosa* L. 3 or 4 european plants have been sent me under that name, even *S. peregrina*, the real answers well to the linnean character.

1188, *Scr. triflora* Raf. pubens, caule simpl. obtusang. fol. pet. ovatis acutis laciniatis, lac. extus serratis, pedunc. axil. 3floris, fol. longior

erectis, caps. ovatis—Sibiria, very distinct, hearer to *Scr. peregrina*, leaves unoial, flowers pale.†

1189, *Scr. peregrina* L. Italia Hisp. smooth, leaves cordate serrate, peduncles 1-3flore nodding.

1190, *Scr. truncata* Raf. glabra, fol. obl. deltoideis acutis, basi truncatis in medio acutis, inequaliter serratis, tenuis subt. glaucis, panicula racemosa, sepe alternans flexuosa glandulosa, bracteolis subulatis, caps. globosis—Russia, Hung. bipedal, leaves thin triuncial, fl. small brown.

1191, *Scr. vernalis* L. Europe, many Sp. also blended.†

1192, *Scr. capitata* Raf. caule crasso simplex obtusang. atropurp. albo hirsuto, fol. longe petiol. lato cordatis obt. duplicato dentatis glabriusc. fl. term. capitatis bracteatis, stam. exsertis—Alps of Bavaria blended with last, nearer to *Scr. coraata* of Pers. pedal, leaves 2 or 3 inches long and wide, upper subsessile, fl. large crowded, bracts ovate serrate. †

1193, *Scr. crenata* Raf. glabra, caule acutang. fol. brevi petiol. ovatis ellipt. obtusis crenatis, fl. racem. panic. bract. lanc. obl. acutis caps. globosis—Europe, blended with *S. aquatica*, but stem not winged, leaves not cordate, base obliqual or truncate or obt. panicle ample, branches opp. or alternate.

1194, *Scr. scorodonia* L. Ital. Hisp.†

1195, *Scr. canina* L. Europa Austr. Sicilia.†

1196, *Scr. lyrata* Raf. puberula, caule tereto, fol. lyratis pinnatifidis, pinnulis obl. media amplior ovata duplic. serrato, pedunc. axill. unifl. cal. lobis rotund. marginatis—Central America, beautiful plant called *Scr. coccinea* in many gardens, but quite unlike the linnean sp. with

whorled ovate leaves, spikes &c. Habit peculiar, fl. large red, almost campanulate, but as in the Genus, calix with a membranose undulate margin.

1197, Erinus *alpinus* L. O—Alps, rare.

1198, Volkameria *inermis* L—India. †

1199, *Volk. fragrans* Vent. Pers. japonica Jaq. Clerodendron of some botanists. Java. †

1200, Wulfenia *carinthiaca* Jaq. Pederota wulfeni Lam. Alps. of Carinthia very rare. †

This Century includes 14 New Genera, whereof 6 now first described, and 37 new sp. whereof 32 now first described.

CENTURIA XIII.

Potentilla L. a very prolific G. to which some authors have wrongly united *Tormentilla*, *Comarum*, *Sibbaldia*, *Boatia* and even *Fragaria*! while it may even be rendered more exact and simple by separating my G. *Dasiphora* It still will include 2 subg. 1 *Pentorila* petals cordate or emarginate, 2 *Aplenta* petals entire: each divisible in 3 sections, with pinnate, digitate or ternate leaves, this last is the Tridophyllum of Necker.

1201, *Potentilla dichotoma* Raf. erecta pilosa, caule dichot. compresso, fol. sessilib. ternatis simplicisque, stipulis ovatis subintegris adnatis subdecurrens, foliolis lanceol. acutis remote serratis, florib. term. et ad dichot. pedunc. calicib. ovatolanc. subacum. pilosis, petalis obcordatis cal. longior.—Origon, pretty sp. bipedal, leaves small remote, uncial, flowers incarnate, the stipules are adnate to the whole short petiol.

1202, *Pot. ciliata* Raf. glabriuscula, caulib.

simpl. subnudis trifloris. fol. radic. petiolatis quinatis subrot. foliolis sess. proximis obov. laciniatis, ciliatis fol. caulinis sessil. ternatis parvis, stipulis obl. integris, calicib. obl. obtusiusc. petalis obcord. cal. subeq.—In Labrador, near *P. emarginata* Pursh, but several disparities, stems 4 to 6 inches with only 2 leaves, flowers rather large pale yellow, perennial.

1203, *Pot. tridentata* O. from Groenland to Matawan Mts. in the South only on Mts. and larger, 4 to 8 inches high, flowers white.

1204, *Pot. pectinata* Raf. Pensylv. L. Tor. rare sp. of Canada and Boreal America, not of Pennsylvania: leaves hardly pinnatiform, rather digitate, 3-7folioles cuneate narrow pectinate, stipules lanceol. 2-3parted. stem bifurcate, calix linear lanceol. hirsute. † The *pensylvanica* of Beck is a very different plant see 1244.

1205, *Pot. hirsuta* Mx. O. Canada and Alleghanies, stem simple erect often semipedal, in Labrador only 2 or 3 inches, annual.

1206, *Pot. cespitosa* Raf. an villosa ? Pursh. hirsuta cespitosa diffusa, fol. ternatis, radic. petiol. foliolis sessil. obov. lacin. caulinis sessil. foliol. obl. stipulis membran. lato lanceol. pedunc. axil. et term. cal. obl. subeq. petalis obcord. cal. brevior—summits of Allegh. Mts. perennial. stems diffuse 2-4 inches long, it differs from P. *villosa* as described by leaves not tomentose, nor petals longer than calix &c.

1207, *Pot. A, norvegica* O. boreal Europe, Asia and America, here extending as far as Carolina, large plant 2 or 3 feet high, it varies with leaves thin or broad and narrow. Of subg. Aplenta.

1208, *Pot. A. flexuosa* Raf. glabriuscula, caule crasso flexuoso ramoso, fol. petiol. terna-

tis, stipulis ovatobl. subintegris, foliolis obl. vel cuneatis crenatis obtusis, pedunc. axil. et term. cal. subeq. ellipt. obtusis, petalis obov. integris cal, eq.—Labrador, very distinct from last by smoothness, leaves and calix, stem 8-10 inches, folioles uncial, petals pale yellow, pistils red. †

1209, *Pot. canadensis* O. all over North America, very variable and parent of the next probably.

1210, P*ot. simplex* Mx. caroliniana Poiret. North Am. hardly different from last, not ramose, less silky.

1211, P*ot. argentea* L. Europe, Sibiria and Canada, several sp. are blended with it, this is erect, leaves quinate pinnatifid, stipules broad.

1212, *Pot. argyrops* Raf. (cinerea Raf. 1817 non Villars) prostrata vel assurgens,caulib. filif. apice cinereis paucifl. fol. subt. cinereis tomentosis, stipulis subulatis, foliolis 3-5 cuneatis linearib. apice 3fidis vel cristatis, fl. dichot. bract. linearib. cal. toment.—New England and New York, perennial, small, 3 to 6 inches, leaves minute slender, fl. small: deemed P. argentea by our botanists.

1213, *Pot. multifida* L. O. Alps and Sibiria, very distinct, yet sent me also as P. argentea!

1214, *Pot. nepalensis* Raf. pilosa. erecta, fol. 3-5natis, stipulis adnatis ovatis acum. integris, foliolis sessil. obov. serratis, fl. brevi pedic. calib. subeq. obl. acum. petalis eq. obcord—Asia in Nipal and Himalaya Mts. with the next, names from gardens, not seen described any where: this appears to represent in Asia our P. *canadensis*, flowers yellow.

1215, *Pot. atrosanguinea* Raf.(quid ?) caule erecto compresso tortilis furfuraceo, fol. ternatis, radic. longe petiol. foliolis sess. ovatis ser-

ratis subtus canis toment. caulinis subsess. stipulis lanceol. ecum. integris, fl. corymbosis, cal. ovatis acum. subeq. petalis amplis obcord.—Himalaya Mts. beautiful sp. leaves large like strawberries white beneath, fl. large dark purple.

1216, *Pot. aurea* O. Alps, pretty sp.

1217, *Pot. verna* L. O. Europa.

1218, *Pot. opaca* L. O. Austria, Helvetia, boreal America.

1219, *Pot. brauniana* Hoppen Sieber—Alps of Tyrol &c. not a variety of *P. frigida*, very rare. †

1220, *Pot. grandiflora* L. O.—Alps, Pyrenees, Sibiria, beautiful sp.

1221, *Pot. egyptiaca* Raf. supina Suber non alis—erecta glabriuscula ramosa, fol. pinnatis, foliolis pinnatifidis vel laceris obl. acutis, stipulis ovatobl. acut. integris, pedunc. axil. nutans, cal. obl. acutis, petalis obov. integris—Egypt, leaves quite dissected, flowers small, of subg. *Aplenta* like P. *supina* that differs by stem decumbent, leaves and stipules serrate &c.

1222, *Pot. rupestris* L. O.—Alps.

1223, *Pot. recta* L. Europa: this sp. is often blended with P. *pilosa* and *obscura*, all these as well as the 2 next and also my P. *pectinata* appear to form a group with similar habit and leaves.

1224, *Pot. pallida* Raf. caule erecto piloso apice dichot. fol. 3-5natis brevipetiol. stipulis amplis ovatobl. integris, foliolis sess. obl. vel cuneatis inciso serratis glabriusc. subtus glaucis; fl. corymb. ped. cal. lanceol. pilosis, petalis obcord. equante—Carpathian Mts. sesquipedal, leaves 2-3 inches, thin, petals bicolor, outside incarnate, inside white. †

1225, *Pot. canéscens* Raf. sent me from Bo-

hemia by Tratenick under this name, I have seen no description; near last, differing by folioles narrower pectinate serrate, with adpressed canescent hairs, almost silky on the flowers, petals longer than calix and of a dirty yellow. †

1226, *Pot. bifurca* L. O.—Sibiria, very rare sp. of subg. Aplenta, petals almost cuneate.

DASIPHORA Raf. differs from Potentilla by receptacles villose or wooly, involving the seeds in dense wool, and the seeds themselves such instead of rugose. This striking character deserves to be Generic here as in other Genera. All the sp. were Potentilla of L. and Authors, and many others belong here besides the following, also the whole 3d section of W. Pers. &c.

1227, *Dasiphora riparia* Raf. Pot. fruticosa L.—Boreal Europe, Sibiria, leaves pinnate, 3-5folioles lanceol. or cuneate, petals shorter, seeds wooly. This and the 2 next are fruticose, forming a subgenus *Thamnila* Raf. by calix with 5 segments linear elongate, and 5 ovate shorter.

1228, *Das. floribunda* Raf. Pot. do Pursh &c, fruticosa of many bot.—Boreal America, Origon &c, very distinct by leaves narrow, linear or oblong. petals equal to calix, seeds villose.

1229, *Das. speciosa* Raf. P. do O—Creta, fine rare sp. suffruticose, fl. congested, petals white equal to calix, the 3 ovate segments broad large, the narrow segments not longer.

1230, *Das. valderia* Raf. P. do Allioni L.—Alps of Italy, very rare, habit of D. speciosa, calix as in D. riparia.

1231, *Das. nitida* R. (Wulfen Pot.) Alps of Tyrol, Carinthia, small uncial, with large fl. ca-

lix lanc. and linear, seeds with long hairs and styles.

1232, *Das. subacaulis* R. (Lin.) Sibiria ad Bohemia et Gallia, small biuncial, petals obcord. longer than calix, seeds pubescent.

1233, *Das. alba* R. (L. O.) Alps, cal. lanceol. petals white obcordate

1234, *Das. jaquini* R. Pot. caulescens Jaq. L—Austrian Alps, cal. linear, petals obov. entire.

1235, *Das. cristata* Raf. reptans, fol. pinnatis, stipulis membran. foliolis ovatis cristato pectinatis, subtus sericeis, pedunc. axil. fol. eq. cal. ovatis et obl. petalis obov. integris longior—Sibiria, near to D. *anserina* and *pimpineloides*, fl. yellow, seeds pubescent.†

1136, D*as.* *anserina* Raf. (O) Europe and boreal America till New York, folioles oblong deeply serrate, peduncles longer than leaves, petals retuse.

1237, D*as.* *reptans* R. (O) Europe from England to Sicily.

1238, Tormentilla *erecta* L. Europe, it has stem erect dichotome, leaves sessile, upper opposite, all ternate, folioles obovate cristate, flowers lax medial &c. This G. essentialy differs from Potentilla not only by often 4 petals, but by a small dry gynophore, seeds smooth, neither rugose nor villose.

1239, *Torm. reptans* L. Europe, creeping, leaves petiolate, flowers large.

1240, *Torm. parviflora* Raf. humilis diffusa procumbens, fol. subsessil. ternatis, superis oppos. simplicib. subintegris, foliolis oblongis vel cuneatis cristatis, fl. term. pedunc. filif.—Europe, often blended with the last, sent me as *T. repens, officinalis*, perhaps the *alpina* of some.

Small 3-4inches high, leaves and flowers very small yellow.

1241, *Torm. fragaroides* Raf. Fragaria sterilis L. Potentilla fragariastrum Ehr. Pers. Comarum do Roth—Europe, paradoxical plant, more akin to this G. by habit and gynophore than to Comarum; but very different from Fragaria and Potentilla, leaves and flowers as in Fragaria, 5 white petals.

1242, Bootia *sylvestris* Big. Eaton, Geum agrimonoides Pursh, Potentilla confertiflora Tor. P. arguta Pursh,Beck, Hooker,--New England, New York &c, fine plant shuffled about, a real G. gynophore as in last, calix with 5 nectariferous pits, 5 entire petals, stamens monadelphous at the base, gynophore pubescent,seeds awnless, lower leaves pinnate &c.

1243, *Bootia cymosa* Raf. Geum rupestris vel viscosum R. mpt. 1817. pubescens subviscosa, fol. inferis petiol. pinnatis 5fol. superis subsess. ternatis simplicisque, foliolis obov. ovatis oblongis argute serratis, cymis 2-3chot. multifl. —Taconik Mts. and rocks of New York, blended with the last by all, but larger, leaves not with 7-9 round folioles as in last, fl. not in a crowded head.

1244, *Bootia*? *sericea* Raf. Pot. arguta Lehm. non Pursh, pensylv. Beck—villosa sericea, caule simplex, fol. subsess. pinnatis foliolis 5-7 obl. sess. pectinato pinnatifidis acutis fl. term. congestis subcorymb. bracteis stipulisque cristato pectinatis, petalis cal. vix longiorib.—Upper Missouri, Origon &c, quite silky white even calix, is it a Potentilla akin to 1204? but which is neither silky nor pinnate: my specimen is of Bradbury. †

1245, Comarum *palustre* L. Raf. fl. tel. 198

Potentilla comarum Dec, Europe and Sibiria. This G. differs from Potentilla by a large spongiose gynophore andpetals acuminate. *Pancovia* of Heister and Adanson would be the best name unless *Arum* becomes again *Arisarum* as in Tournefort; but W. has a Pancovia.

1246, *Com. tomentosa* Raf. var. villosum Pers. more robust than last,with broader leaves obl. ellipt. tomentose beneath—North Europe

1247, *Com. digitatum* Raf. fl. tel. 199—boreal America to New York, blended with last by our botanists. very distinct by leaves obl or lanceol. smooth, large flowers &c.

1248, *Com. angustifolium* R. fl. tel. 200, Origon and Boreal America, Ohio: very peculiar, leaves narrow smooth, fl. small &c.

1249, V*ar. parvifolium* Raf. folioles 5-7small smooth cuneate or elliptic, petiols membranose, flowers very small, branches uniflore; Labrador, 3 to 10 inches high, folioles less than uncial.

1250, Dryas *intcgrifolia* Vahl. tenella Pursh—Canada, Labrador, Norway. Leaves ovatobl. acute, base cordate, margin revolute.

1251, *Dryas crenata* Raf. 8petala O.—Alps, Canada; leaves subcordate elliptic obt. crenate lobate or crenate serrate: both sp. have 8 petals.

1252, Alchemilla *alpina* O—Alps, Canada, Mts. of New England.

1253, *Alch. vulgaris* O—Labrador,Europe.

1254, *Alch. pubescens* Lam. hybrida of others Europe.

1255, Aphanes arvensis L. Alchem. Aphanes Lam. Europe.

1256, Poterium *angustifolium* Raf. caule sulcato folioso, stipulis cristatis, foliolis 5-9 lin-

eari lanceol. argute serratis, superis subintegris capitulis ovalibus—Sicily and Greece, pedal folioles uncial narrow, heads purplish brown.

1257, P*oterium microphylum* Raf. caule angulato subnudo, fol. radicalib. petiolis pilosis, foliolis 11-17 minutis subsess. ovatis obovatisque cristatis, capitulis obovatis—Scotland, Norway &c, mixt with the next, but quite distinct, stem naked or only one leaf at base, folioles one fourth of inch only, beads brownish.

1258, P*ot. heterophylum* Raf. caule angul. folioso, fol, radic. petiolis pubescens, foliolis 9-15 sessil. subrot. cristatis, caulinis foliolis 7-11 petiol. parvis angustis oblongis serratis, stipulis subintegris, capitulis subrot.—Alps of Bavaria, Austria &c, also sent me as P. sanguisorba, smaller semipedal, folioles hardly semiuncial, flowers dark purple.

1259, P*ot. sanguisorba* O. Europe, I add the common Burnet for contrast with my 3 new sp. it is 1 or 2 feet high, folioles ovatoblong grossly serrate petiolate quite smooth often uncial, heads oval &c.

1260, Sanguisorba *stipulata* Raf. herb. 47, S. offic. var. auriculata? Origon, Sibiria large plant, folioles triuncial cordate ovate dentate stipulate, heads oblong red.

1261, *Sang. palustris* Raf. atl. j. 153. swamps of Alleghany Mts. near S. canadensis, differs chiefly by folioles obliqual elliptic cordate pectinate serrate, bracts subulate, stipules cristate, flowers similar.

1262, *Sang. canadensis* O. Canada to Pensylv. folioles oblong serrate often truncate, heads cylindrical, bracts lanceol. stamens clavate flowers white.

1263, *Sang. media* L. Allegh. Mts. New Jersey, hardly different from last, folioles very obliqual subcord. serrate,spikes stamens shorter.

1264, *Sang. officinalis* O. Europe, leaves oblong obliqual, heads short elliptic red. A singular var. deserves to be a sp. *S. nudicaulis* Raf. caule angul. nudo simplex, petiolis sulcatis, foliolis ovatis cord. obt. capitulis globosis—Carpathian Mts. leaves all radical, folioles 9-15 small not obliqual, 2 or 3 rudiments of leaves on stem, fl. red. †

1265, GEUM L. O. Caryophilata Tourn. Ad. this G. must be divided in 4 including *Bernullia* of Necker and *Sieversia* with my *Stylipus* with calix camp. 5fid (see 30): Geum is rather too short a name, would not *Geuncus* be better? expressing the uncinate character of the seeds in the real G. neither twisted nor plumose.

Geum pecki Pursh, rare sp. of the Wapani Mts of New England, fruit undescribed, my specimen not in fruit: is it a Bernullia? very near B. acaulis 1274. †

1266, *Geum. renifolium* Raf. fol. radic. longissime petiol. reniformis lobatis ineq. serratis, subtus villosis, fol. caulinis sepe 2 breviss. petiol. trifidis incisis, stipulis lanceol. integris, cymabifida paucifl. petalis obov. cal. subeq.—Origon or Sibiria, stem. semipedal nearly naked, lower petiols as long, leaves nearly as in *Alchemila*, flowers 3 to 6 white on short peduncles, calix lanceolate.

1267, *Geum latifolium* Raf. fol. brevipetiol. dilatatis trifidis incisis, adpresso hirsutis, stipulis ovatis laciniatis, florib. congestis, petalis obov. emarg. calix acum. subeq.--Sibiria, sent me as *G. macrophylum* name not in my books and not aplying, leaves and flowers close, petals ochroleucous. †

1268, *Geum hirsutum* Waldstein. Hungary, pilose, leaves ternate, lower subpinnate, rhomboidal, stipules ovate laciniate, stem uniflore, fl. small, petals equal to calix. †

1269, STREPTILON Raf. (twisted awn) at least a subg. differs from *Geum* by twisted awn, not plumose as in *Bernullia*, seeds smooth —*Geum Str. odoratum* Raf. G. urbanum L. Europe.

1270, BERNULLIA Necker, differs Geum by seeds villose and awns geniculate or contorted and plumose, petals often 6 &c.

Bernullia rivalis Raf. Geum do L. Mts. of Europe.

1271, *Bern. nutans* Raf. Geum do Raf. dec. rev. 1817,G. rivale of all amer. botonists,yet distinct by larger leaves trifoliate interrupted pinnate, more flowers nodding, petals not obcord. hardly retuse (never 6) dark purple, awns less twisted naked at the tip &c.

1272, *Bern. hybrida* Necker. Geum. riv. var. L. very different also, leaves trilobe not trifoliate, calix often foliose, petals obovate incarnate, awns only plumose at the end above the twist. Mts. of Europe. †

1273, *Bern. montana* N. Geum L. Alps, 6 large petals. †

1274, *Bern. acaulis* Raf. G. mont. var. minor L. scaposa,fol. lyratis apice subrot.ineq. crenatis, scapo 1floro 1-2bracteolato, petalis 5 obov. retusis—Summit of Styrian Alps, neither caulescent nor leaves pinnate as in last, flower smaller.†

1275, *Bern. reptans* N. Geum. L. summits of Alps, petals 6 or 7, very rare.

1276, *Bern. heterophyla* Raf. Geum album, canadense. virginianum of various authors—fol.

radic. cordatis subpinnatis vel trifoliatis petiolis et subtus villosis, foliolis cordatis obovatisque, lobatis dentatis, fol. caulinis subsess. trifol. vel simplicib. obovatis rhombeis vel lanceol. incisis, vel integris sepe glabris ciliatis, stipulis vix integris, petalis obov. albis, aristis apice barbatis —Canada to Carolina, Kentucky &c, stem 1 or 2 pedal simple or dichotome, leaves quite variable on same root, flowers small white: the most permanent characters are the lower leaves villose beneath, upper simple, petals and awns. A var. *integrifolia* has leaves mostly simple lanceolate entire.

1277, *Bern. media* R. Geum intermedium Tr. caule petiolisque hirsutis,fol. rad. interrupte pinnatis, foliolis obovatis incisis, ultima trifida, fol. caulinis trifoliatis, stipulis laciniatis, fl. term. paucis, calicib. lanceol. acum. obt. aristis apice plumosis—Sibiria, stem simple, leaves nearly smooth small, flowers incarnate?

1278, *Bern. confluens* Raf. Geum canadense, strictum, geniculatum of various authors, of which the synonymy is in utter confusion as in others, every author describing some peculiar variety: I have therefore concluded to change all the names. This is known at once by the radical leaves not villose, pinnatifid or pinnate oblong upper pinnules confluent, all oblong or obovate duplicate serrate outside, the stem leaves pinnatifid or triparted, seldom simple, stipules laciniate, flowers and awns as in 1276. Mts. Allegh. Pensylv. &c.

1279, *Bern. acuminata* Raf. Geum strictum, canadense of some, Potentila pensylv! of others—hirsuta,caule stricto virgato paucifl. fol. radic. et caulinis pinnatifidis, pinnulis oblongis incisis acuminatis, stipulis incisis, florib. confer-

tis, aristis apice villosis—Ohio, Kentucky, Tennessee . . . very distinct habit by narrow sharp leaves, blended with the last: it blackens by drying while the others do not.

1280, Bossekia *fragaroides* Raf. Comaropsis do Dec. Dalibarda do Mx. P. T. B—Alleghany Mts. Comar-opsis formed from Comarum is inadmissible, I propose the Bossekia of Necker instead applied to the Chamemorus section of Rubus.

1281, Dalibarda *repens* L. Necker, Beck, violeoides Mx. cordata Steph. Rubus dalibarda also--Canada, New England and Alleghany Mts.

1282, Cylactis *montana* Raf. 1817, Rubus Canadensis of some botanists, Tor. not of L. says Hooker, it has received 5 other names! R. triflorus Rich. Hook. saxatilis Mx. and others, parviflorus Nut. egopodioides Dec! but is the type of a real G. by angular calix 5-7fid. 5-7petals emarg. few acins. Boreal America to the Northern Alleghanies. I have not yet revised my numerous sp. of *Rubus*, but in 1830 I divided it in many other Genera, Dictisperma, Selnorition, Cumbata, Ampomele, Ametron, Manteia, see sylva tel. p. 160.

1283, Phemeranthus *teretifolius* Raf. 1808, Talinum do auct. Pers. to Alabama on magnesian rocks, rare.

1284, Enemion *biternatum* Raf. 1820, Dec. Tor. Isopyrum thalictroides Hooker and some others but not of L. wrongly blended by the mere habit, flowers and seeds unlike. Ohio, Kentucky Illinois, vernal.

1285, Isopyrum *thalictroides* L. Alps. †

1286, *Isop. fumarioides* L. Sibiria. †

1287, Telephium *imperati* L. South Eu-

rope and North Africa, rare ; leaves alt. obov.†

1288, CORRIGIOLA *littoralis* L. South Europe, North Africa.

1289, MINUARTIA *dichotoma* L. Hispania.

1290, PHARNACEUM *bellidifolium* Lam. &c. Cuba, South Florida, very rare. †

1291, NEURADA *procumbens* L. O. North Africa, Arabia: rare and singular G. of doubtful affinities, put near Sanguisorba by Jussieu ; but belonging to my order *Ascadia* and nat. family *Gastonides* differing from *Aralides* by a capsule. †

1292, PROSERPINACA *serrata* Raf. palustris L. O. fol. omnis lineari lanceol. serratis, capsulis angulis subalatis—New England to Kentuky, all the sp. are palustral, the G. also belong to Gastonides.

1293, *Proserp. pectinata* Lam. fol. omnis pectinatis pinnatis, pinnulis tenuis subulatis, capsulis angulis levis—New Jersey to Alabama.

1294, *Proserp. heterophyla* Raf. fol. inferis pectinatis pinnatifidis pinnulis lanceol. fol. superis lanceol. vel cuneatis argute serratis, capsulis levis—New York, New Jersey: it is not a var. of serrata as wrongly deemed by many, it blossoms a month earlier.

1295, *Proserp. tuberculata* Raf. fol. omnis lineari lanceol. integris vel remote subserratis, capsulis angulis tuberculatis—Alabama. †

1296, TRIBULUS *dimidiatus* Raf. trijugatus Nut. terrestris and maximus of others not L. Carol. Florida, folioles 6 or 8 nearly dimidiate obliqual.

1297, TRIENTALIS *europea* O. boreal Eur. Amer.

1298, *Tr. americana* O. Alleghany Mts.

1299, POLYCARPON *tetraphylum* L. South of Europe, Carolina &c.

1300, STIPULICIDA *setacea* Mx. Polycarpon stipulifidum Pers. Carol. to Louisiana, rare.

This Century contains 7 New Genera, whereof 3 now first described, and 33 new specics whereof 30 now first described.

CENTURIA XIV.

1301, ASCLEPIAS *quadrifolia* Jaq. O. New Engl. to Kentucky, flowers smelling like Vanilla and Heliotropium peruvianum.

1302, Var. *oppositifolia* R. Ascl. vanillea Raf. dec. 1818, Maryland to Kentucky, all the leaves opposite.

1303, *Ascl. megalotis* Raf. new fl. 892. Florida, blended by Torrey with *A. obovata.*

1304, *Ascl. albiflora* Raf. n. fl. 893, nivea and incarnata of some, Unaka Mts. in Apalachians. †

1305, *Ascl. nivea* L. Carol. Alab. it differs from last by stem flexuose, leaves ovate elliptic subacute at both ends, ombels lateral pedunc.

1306, *Ascl. lancifolia* Raf. glabra, caule simplex fistuloso, fol. oppos. brevi petiol. lanceol. utrinque acum. subtus glaucis, umbellis term. sepe geminis, multifl. pedicelis pubens, corniculis exsertis—Florida, mistaken also for *nivea* by some; stem ultrapedal, leaves four inches long, flowers with corol pale incarnate or greenish, nectaries white near to A. curassavica and incarnata.

1307, *Ascl. obtusifolia* Mx. New York to Florida, very distinct sp. leaves clasping elliptic obt. undulate, some are acute.

1308, *Ascl. amplexicaulis* Mx. humistrata ? Walt, Pers. Carol. to Arkanzas, rare, leaves clasping, cordate acute &c.

1309, A*scl. cinerea* Walt. Carol. Flor. rare.

1310, A*scl. gonalis* Raf. caule teres sulcato latere uniangulato, apice pubens, fol. brevi pet. lanceol. utrinque acutis subtus villosis, umbelis term. sepe geminatis multifl. auriculis obl. elongatis, corniculis inclusis—Arkanzas,leaves 3uncial, flowers incarnate. †

1311, *Ascl. æmæna* L. Virg. rare, leaves subsess. ovate ellipt. mucronate, nerves pubescent beneath, fl. large purple, cornicles short not exert.

1312. A*scl. lasiotis* Raf. an pulchra ? nonulis ? caule striato, fol. subsess. obl. lanceol. acum. basi acutis, subtus villosis glaucis, umbellis term. auriculis ovatis villosis, corniculis insertis—New Jersey rare, peculiar auricles whence the name, A. *pulchra* and *purpurascens* are both doubtful sp. badly described,leaves 3 or 4 inches. fl. rather large purple. †

1113, A*scl. maritima* Raf. dec. 1817. (pulchra ? incarnata of Am. bot) sea shores and near waters in the Atlantic States from Long Island to Carol. it differs from last by stem and leaves beneath villose, not glaucous, base obt. or subcordate, flowers small smooth pale incarnate, cornicles exsert.

1314, *Ascl. incarnata* L. mixt with last by many,but branched, quite smooth &c, banks of streams, *riparia* would have been a better name.

1315, *Ascl. exaltata* Mg. phytolacoides Pursh, acuminata and nivea of others! New York to Kentucky rare.

1316, *Ascl. curassavica* L. Carol. Florida, Antilles.

1317, *Ascl. variegata* L. hybrida Mx. New Jersey to Carol. Louis &c, it has several var.

almost specific deviations, *pumila, undulata, rotundif.*

1318, A*scl. parviflora* Ait. debilis Mx. New Jersey to Illinois, Louisiana and Florida, several var. *angustifolia, longifolia, lanceolata, debilis &c.*

1319, Var. *latifolia* Raf. fol. ovato lanceol. acum. umbelis paucifl. Florida, leaves shorter and broader 2 or 3 inches only, while in var, longifolia they are 6 to 8 inches linear lanceolate.

1320, A*scl. verticillata* L. very distinct sp. same wide range as the last, but quite local also.

1321, A*scl. tuberosa* L. decumbens L. all over North America, many var. *erecta, decumbens, pauciflora, obtusifolia, cordata, undulata, latifolia &c* is not A. *rubra* another? all have orange blooms, leaves obl. petiolate.

1322. A*scl. cuneifolia* Raf. caule piloso, fol. sparsis sessilib. cuneatis acutis, supra scabris, subtus pilosis; umbelis term. geminatis, auriculis elongatis corniculis equante—Virg. Florida, humble semipedal, leaves biuncial, flowers bicolor, corola red, nectaries yellow. Akin to last, but distinct by leaves and flowers.

1323, A*scl. serica* Raf. Syriaca L. O. not Syrian but silk bearing! North America, banks of streams, flowers pale lilac color, fragrant.

1324, A*scl. elliptica* Raf. fol. subsess. ellipticis utrinque obtusis, apice retusis vel mucronatis, subtus villosis, umb. term. geminatis, pedic. villosis, corniculis discolor ovatis obt. auriculis inclusis—Pensylv. to Kentucky, blended with last, but leaves not obl. acute, and flowers bicolor, corola red, nectaries pale, large leaves and flowers.

1325, A*scl. paupercula* Mx. New. Jersey to

Florida, pretty sp. fl. bicolor red and yellow, some var. *longifolia, latifolia.*

1326, A*scl. acuminata* Pursh, cordata Walt. laurifolia Mx. periplocifol. Nut.—How many names! they all appear var. with leaves ovate lanceol. acum. fl. similar, New Jersey to Florida, the var. are *latifolia, longifolia, angustifolia.*

1327, GOMPHOCARPUS *fruticosus* R. B. Asclepias do L. Africa. †

1328, OTANEMA *latifolia* Raf. new fl. 889 Ascl. obovata? E. this G. differs from Asclepias by cornicles lacking, it was my *Acer-otis* of 807, Allegh. Mts. Kentucky, Carol.

1329, *Otan. ovata* Raf. n. fl. 890. Ascl. nutans Mg. Novangl. Virg.

1330, *Otan. lanceolata* Raf. n. fl. 891. Asclep. do Ives, Viridiflora Raf. 1808. Novangl. ad. Kent.

1331, OLIGORON *longifolium* Raf. new fl. 886, Ascl. do Mx. floridana Lam. angustif. Tor. Acerates El. Carol, Flor. Arkanzas. var. *hirsutum.*

1332, *Oligoron tenuifolium* R. n. fl. 887. Arkanzas.

1333, ANANTHERIX *grandiflora* Raf. Arkanzas, very distinct from A. *viridis* Nut. †

1334, A*nantherix verrucosa* Raf. Asclep. connivens Baldw. E. Florida, Alabama.

1335, PODOSTIGMA *pubescens* El. Stylandra pumila Nut. Ascl. pedicellata Walt. Carol. Florida.

1336, VINCETOXICUM *officinale* Moench, Asclepias vincet. L. Cynanchum do Pers—Europa, 3 var. *latif. angustif. triflorum*, nerves pubescent in all, fl. white.

1337, *Vincet. acuminatum* Raf. Gonolobus et Cynanchum levis O—fol. latovat. cord. acum. superis lanc. nervis pubesc. ped. multifl. biumbellatis—Carol. Florida, Louis. leaves 2-3uncial. fl. white.

1338, *Vincet. nigrum* M. Ascl. do L. Cyn. do Pers. South Europe, leaves ovate not cordate, nerves smooth, fl. brown.

1339, *Vincet. luteum* Sieber—Creta, leaves sess. ovate acute smooth, fl. axil. congested yellow.†

1340, Apocynum *androsemifolium* L. North America,leaves broad ovate acute quite smooth, var. *paucifl. parvifolia, latifol.* &c.

1341, *Apoc. mollis* Raf. caule dichot. angul. fuscato fol. subsess. ovatobl. subacum. subtus villosis cinereis, fl. term. cymosis—Mts. Allegh. akin to last, leaves smaller narrower, fl. similar incárnate.

1342, *Ap. rotundifolium* Raf. caule angul. ramoso fuscato, fol. brevi petiol. subrot. subtus villosis cinereis, infimis retusis, superis ovatis, acum. cymis term. paucifl.—Mts. Allegh. remarkable deviation of last, leaves small uncial, flowers smaller. †

1343, *Ap. dimidiatum* Raf. caule angul. cinereo, fol. brevi petiol. ovatis cuspidatis, sepe dimidiatis, basi acutis obliq. subtus villosis cinereis, cymis axil. pedunculatis paucifl.—Florida, leaves uncial, fl. small, as in last. †

1344, *Ap. pubescens* RB. Beck, canabinum Mx. P. Pers. Ohio to Alabama, leaves subsess. obl. acum. fuscate villose beneath, cymes terminal multifl. parviflore.

1345, *Ap. clandestinum* Raf. caule erecto subteres rubicundo elato, fol. subsess. ovatolanc. vel ellipt. basi rotund. vel subcord. apice acutis

mucronatis, subtus glaucis pubescens, fl. term. paucis in ramis reconditis—New Jersey, habit of next, leaves large 2 or 3 inches, fl. white few hidden among terminal leaves and sterile branches.

1346, *Ap. canabinum* L. North Amer. leaves obl. or elliptic mucronate, base acute quite smooth, fl. white small in forked stem.

1347, *Ap. hypericifol.* L. leaves smooth base obt. or subcordate, commonly decumbent. var. *latif. angustif. procumbens &c.*

1348, *Ap. sibiricum* L. Sibiria, Kentucky, leaves smooth lanceol. acute at both ends not mucronate, fl. termimal.

1349, *Ap. venetum* L. adriatic islands. †

1350, CYNANCHUM *microphylum* R. new fl. 882. Florida. †

1351, *Cyn. acutum* L. Hisp. Sic. Egypt.

1352, *Cyn. erectum* L. Syria, Creta. †

1353, LYONSIA *cuspidata* R. n. fl. 883. Cynanch. angustif. of some, Florida. Genus of Elliot, his sp. is my L. maritima, which is *Ceropegia palustris?* Pursh.

1354, *Lyonsia? scoparia* R. Cynanch. do Nnt. probably of this G. habit similar. Florida.

1355, GONOLOBUS *biflorus* Raf. n. fl. 879. Arkanzas, Texas &c, fl. small segments obl. acute.

1356, *Gonol. microphylus* Mx. Carol. to Kentucky. leaves oblong cordate acum. pubesc. fl. greenish, purple, segments linear obt.

1357, *Gonol. obliquatus* Mg. Pens. to Kentucky, differs by leaves obliqual, shorter acute ciliate glaucous beneath, segments of corolla obliqualy acute.

1358, *Gonol. carolinensis* E. N. Cynanch. do W. Carol, differs by leaves obl. cord. acute

rough above, pubesc. beneath, fl smaller fewer yellow, segments ovate undulate.

1359, *Gonol. hirsutus* Mx. leaves realy cordate not oblong, acum. fl. large crowded dark purple.

1360, *Gonol. levigatus* Raf. (non levis Mx.) glaberrimo, fol. obl. cordatis abrupte breviss. acum. levissimis, umbelis axil. paucifl. cal. segm. ovatis acutis, corola segm. obl. acutis—Carol. Florida, very distinct sp. by flowers pale red or incarnate smaller not cymose, leaves very thin quite smooth even on the nerves: it is not the *G. levis* of Mx. see 1337.

1361, Ampelamus *riparius* Raf. Enslenia albida Nut. 1818 non Enslenia Raf. 1817. Sands of banks of streams Ohio to Missouri, the name means *Sandvine.*

1362, Ansonia *tenuifolia* Raf. n. fl. 880, Florida.

1363, A*ns. angustifolia* Mx. Carol. Flor.

1364, A*ns. ciliata* Walt. Carol. Flor. I have shown how these 3 sp. differ in my new flora.

1365, A*ns. salicifolia* Pursh. Carol. to Kentucky.

1366, A*ns. latifolia* Pursh, leaves ovatobl. acum, Carol. to Louisiana. All these were blended in Tabernemontana ansonia L. the G. has usually been mispelt *Amsonia*, it is dedicated to Anson the navigator.

1367, Echites *salicifolia* Raf. n. fl. 881, Florida.

1368, *Ech. difformis* L. Carol. to Louis. leaves ovate acuminate, sometimes rounded or obovate.

1369, *Ech. biflora* L. Cuba, Antilles. †

1370, Periploca *americana* Raf. Greca Pursh nor L. ramis levibus, fol. ovatis acum.

subtus glaucis, fl. cymosis villosis—New Jersey to Carol. blended with next by Amer. botanists, woody vine with smooth bark, leaves larger biuncial, fl. larger, tomentose white inside. †

1371, *Periploca greca* L. ramis rugosis, fol. ovatobl. acutis concolor, fl. cymosis villosis—South of Europe, bark rough, leaves uncial.

1372, PERVINCA *rosea* L. sub Vinca! Madagascar.

1373, *Perv. major* L. Europe, leaves petiolate ovate acute, stem smooth.

1374, *Perv. sicula* Raf. caule hirsuto, fol. subsess. latovatis, subcordatis acutis nervis et marg. ciliatis, pedunc. nutans fol. eq. calicib. linearib. acutis—Sicily, leaves uncial. fl. large purple stem erect.

1375, *Perv. heterophyla* Raf. glabra, fol. petiol. subrotundis vel obov. obtus. vel retusis reticulatis: pedunc. fol. longiorib. calicib. obl. obt. England and Ireland where it is blended with *P. major*, fl. small as in P. *minor*, stem elongate weak fuscate.

1376, *Perv. minor* L. (not of all) Europe, smooth, leaves subsess. obl. elliptic obtuse, peduncles equal to leaves, calix linear obtuse.

1377, *Perv. repens* Raf. glabra, repens stolonifera, fol. subsess. lanceol. obl. acutis, pedunc. fol. longiorib. calicib. lanceol. acutis—Europe, naturalized in Pensylv. leaves uncial or less, very small and subovate on the running stems, fl. small as in last.

1378, ATIRSITA *pumila* Raf. n. fl. 821. Arkanzas, N. G. near Veronica and the next.

1379, ZELIAUROS Raf. cal. 6-7 part. ineq. corolla rotata subeq. 6-7partita, stam. 2 remota deflexa filif. stylus filif. pers. stig. capit. caps. ovata in cal. inclusa, *fol. oppos. fl. axil. pe-*

dunc.—singular G. of tribe Veronicoides, the name was an old one of Anagalis.

Zeliauros repens Raf. glabra repens assurgens, fol. sessil. obov. vel obl. obt. pedunc. axil. nnifl. erectis fol. longiorib. calicib. obov. et obl. —Spain or Maroco? small plant 3 to 4 inches high, leaves few small, fl. large incarnate, calix with segments obt. quite unequal in size and form, some oblong smaller.

MEADIA Catesby, Adanson, *Dodecatheon* L. &c fine G. chiefly American, now very prolific. Linneus changed the good previous name to one meaning 12 gods instead of 12 flowers, become quite absurd since these are even sp. with 1 or 3 or few or 20 flowers! I gave a monograph of it in 1836 Herb. Raf. which I have since improved and increased to 15 sp, all blended under *D. meadia* and *integrifol.* Hooker has even in bot. mag. 3620, as *D. integrif.* a beautiful New G. of Origon Mts. with stamens monadelphous in a tube, stamens connivent unilocular &c, which I have called EXINIA *pulchella* Raf. fol. petiol. cuneatis integris acutis, umbella 8-10fl. bract. ovatolanc. fl. purp. contortis.

1381, MEADIA *cordata* Raf. monogr. 1. Sibiria, very distinct sp. with leaves pet. cord. lobate. †

1382, *M. elliptica* R. 2. Allegh. Mts. Ohio.

1383, *M. ovata* R. 3. Unaka Mts. Apalachians.

1384, *M. obovata* R. 4. Virginia, Kentucky, var. *brevifolia.*

1385, *M. serrata* R. 5. Illinois. †

1386, *M. parvifolia* R. 6. Wasioto Mts.

1387, *M. caneata* R. 8. Allegh. Mts.

1388, *M. longifolia* R. 9. Kentucky, Illi-

nois, Missouri, Louisiana, leaves from 5 to 10 iuches long, petiolate entire, var. *cuneif. elliptica &c.*

1389, *M. crenata* R. 10. Illinois, leaves sess. obl. acute, subcrenate or denticulate.

1390, *M. undata* R. 7. Allegh. Ohio, leaves petiol. lanceol. subobtuse undulate, entire, var. *oblongif. cuneif.*

1391, *M. triflora* R. 11. Missouri.

1392, *M. uniflora* R. 12. Mts. Allegh. rare†

1393, M. *dentata* Raf. fol. petiol. lato lanceol. utrinque acutis, inequaliter dentatis, scapo paucifl. bract. ellipt. obt. pedunc. erectis—Origon, leaves semipedal, scape ultrapedal, flowers 5 or 6 large white.†

1394, M. *pendula* Raf. fol. sessil. obl. obtusis ineq, dentatis. scapo multifl. bract. ovatis obt. pedunc. reflexis pendulis—Sibiria and Origon, singular sp. the Sibirian has smaller leaves 3uncial, fl. purple; the American larger leaves 5 inches long, larger flowers incarnate, 10 to 12.

1395, M. *polyanthes* Raf. fol. sessil. obl. vel cuneatis obt. subrepandis denticulatis, bract. ovatis acutis, umbela 15-20flora, pedunc. ineq. flexuosis diffusis—Sibiria, beautiful sp. leaves 4 to 6 inches inches long, ombel very ample, some peduncles 3 to 4 inches long, fl. incarnate or pale.

1396, ANDROSACE *occidentatis* Pursh. Upper Missouri, very different from next.

1397. *Andr. elongata* L. Europe, Sibiria.

1398, *Andr. septentrionalis* L. boreal Europe and America.

1399, *Andr. villosa* L. Alps.

1400, IPOSUES Raf. cal. campanul. 4dent. corolla 4partita crassa, lac. erectis angustis, stem. 8, filif. erectis subineq. antheris ovatis.

stylus brevis. fruct. capsula ? *fol. oppos. fl.* term.—Singular G. that I cannot refer to any tribe lacking the fruit, but having affinities with the Heaths and *Menziesia*: the name was a synonym of Hipophae.

Iposues obovata Raf. pumila suffruticosa, squamulis peltatis vestita, fol. opp. petiol. obov. obt. crassis subenervis, ramis unifl. fl. brevi pedunc. cal. dentis brevib. acutis, corolla squamulosa, lac. lanceol. obt. staminib. glabris—Asiatic, sent me without name, leaves semiuncial, fl. as large fulvous, the whole plant even the corolla covered by minute peltate scales. †

This Century contains 6 New Genera whereof 2 now first described, with 30 new sp. whereof 15 now first described.

CENTURIA XV.

ENDOGENOUS OR MONOCOTYLES.

1401, SMIDETIA Raf. *Schmiedtia* Tratenick. Lepanthium uniglumis univalvis unifl. stam. unica elliptica, ovar. obl. stylus unicus incurvus simplex. Semina obl. *Herbula cyperoidea subscaposa, folia vel invol. unicum. ad scapis, fl. verticillatis subpaniculatis*—very singular habit, fl. not spiculate but solitary as in grasses: it is akin to the monandrous and monostyle grasses, but stems not articulate, I have modified the barbarous german name. Monotype.

Smidetia humilis R. Schm. subtilis Tr. annua pumila, glabra, fol. radic. gramineis angustis canalicul. basi dilatatis, involucro similis latiorib. falcatis basi vaginatis, panicula tripartita, verticilis multifl. fl. pedunculatis—Bohemia piscinis exsicatis. Small plant 2 inches high, leaves shorter, fl. many fuscate. †

1402, RHIZAKENIA Raf. fructific. radicalis, scapo incurvato unifloro, capsula akeniformis monosperma globosa, apex stigmatiformis lobato umbilicato perforato *fol. radic. petiol*—singular G. of the Rhizospermous family near to *Pilularia, Isoetes &c.*

Rhizakenia ovata Raf. Hydrocharis cordifolia! Collins mpt. an. Nut? Ambrosinia! alismoides Nut. mpt.—repens glabra, petiolis elongatis teretib. fol. ovatis acutis vix venosis, scapis brevissimis recurvis, capsula pendula--in some ponds from New England to Florida? very local and rare, petiols 3 to 6 inches, leaves uncial not at all cordate base acute, veins paralel transversal, scape 1 or 2 inches, capsule pisiform. †

1403, HYDROCHARIS *morsus* L. O. Europe, quite unlike the last in every thing.

1404, ERIOCAULON *longifolium* Raf. fol. gramineis longissimis pedalis latiusculis obtusis, scapis fol. sepe breviorib. usque ad medium vaginatis, apice contortis costatis, capit. depressis, bract. ovatis acutis scariosis fulvis pubens—South New Jersey in swamps, leaves pedal, scape slender rigid, heads small, fl. pale.

1405, *Erioc. callosum* Raf. fol. gramineis semipedalis latiusculis apice obt. callosis, scapis fol. longior basi vaginatis contortis sulcatis, capit. depressis, bract. subrot. acutis vel obt. fulvis glabris, fl. cinereis—Alabama, leaves broader at base, scape ultrapedal, heads small, fl. cinereous.

1406, *Erioc. serotinum* Walt. fol. semiped angustis glaucescens, obt. scapis elongatis, basi vaginatis, contortis sulcatis costatis, capit. globosis umbilicatis, bract. latovat. acum, vel laceris glabris—New Jersey to Carol. blended with

the last in *Erioc. decangulare* of authors, none of them has 10 angles ! this has 12 to 15 grooves and ribs, fl. white.

1407, *Erioc. gnaphaloides* Mx. compressum Lam. decangulare Walt. bracts or scales elliptis obt. fl. cinereous.

1408, *Erioc. brevifolium* Raf. fol. subul. brevissimis acutis, scapo elong. gracilis contorto sulcato, basi vaginato, capit. globosis, bract. ovat. acut. glabris fulvis—South New Jersey and Texas, leaves uncial or less, scape 5 to 8 inches few ribs, heads small, fl. grey.

1409, *Erioc. pellucidum* Mx. Canada, Alleghanies, New Jersey, leaves 1-2inches, scape 3 to 6, scales often fuscate, fl. grey.

1410, Var. *pumilum*, leaves uncial, scape 3uncial, head small, on Mts.

1411, *Erioc. flavidulum* Mx. New Jersey to Carol.

1412, Var. *cinereum* Raf.—Florida, Alabama, leaves broadly subulate 2 inches, scape 3 to 4, fl. dark grey, bracts greenish.

1413, *Erioc. villosum* El. Carol. to Louisiana.

1414, Xuris or Xyris, see my fl. tel. 18 to 21, where the G. is reformed into 4, with *Synoliga, Ramotha, Jupica—X. brevifolia* Mx. New Jersey to Florida, very distinct.

1415, *X. caroliniana* W. jupicai Mx. anceps Pers. indica of others—New Jersey to Alab. Kentucky &c, scapes unequal some short equal to leaves, bracts only scariose on the margins.

1416, *X. flexuosa* Mg. indica Nut. Eat. &c, not L.—New Jers. to Car. it differs from last by leaves slender spiral glaucous, head globose, bracts quite scariose &c.

1417, *X. retusa* Raf. glaucous, fol. tenuis elongatis erectis striatis sepe tortilis, scapis duplo longior striato angul. capitulis ovatis obovatisque obt. bract. subrot. scariosis convexis retusis—Kentucky to Alabama, leaves pedal slender, scapes bipedal, heads rather large: compare with *Ramotha floridana* fl. tel. 21.

1418, *X. spiralis* Raf. glauca, fol. erectis brevis filiformis semiteres vel canalic. spiralis, scapis filif. spiralis vel contortis subbiangul. capitulis parvulis ovatis acutis, bract. subrot. scariosis integris—South New Jersey, pedal or less, habit of next, leaves 2 to 4 inches.

1419, *X. fistulosa* Raf. juncea Baldw. El. non RBr—Florida to Louisiana, leaves filiform terete hollow recurved 3 to 6 inches, scape and fl. as in last.

1420, X. or JUPICA? *albiflora* Raf. (X. cylindrica Baldw. mpt.) fol. strictis ensatis latoplanis striatis, scapis duplo longior teres anceps sulcatis, capitulis ellipt. subcyl. obt. bract. dilatatis integris vel. emarg.—Florida, disc. by Baldw. in 1815, not yet described, unless *X. fimbriata* of Elliot be very badly so, and appears rather an akin sp. leaves pedal, scape bipedal. fl. white by a note of Baldwin, while all others are yellow, except *Jupica cerulea*. †

1421, TRISTEMON *repens* Raf. Juncus do Mx. O—Carol. to Louis. this G. indicated 1815 (see fl. tellur. 887) is nearer *Elegia* than Juncus, having 3 stamens only, fl. commonly capitate.

1422, *Trist. echinatum* R. Junc. do El. N. Jersey to Carol. &c one of the blended sp. in *J. nodosus* and *polyceph.* stem terete smooth. leaves filiform not nodose. heads 1 to 6 echinate brownish.

1423, Var. *prolifera*, with neutral glumes among the heads, they are lanc. acum. elongate, 3 to 4 imbricate.

1424, *Trist. fulvum* Raf. J. nodosus O. Canada to Virg. all the akin sp. are often blended in this by our botanists, it differs from last by stem less leafy, leaves nodose, heads 1 to 3 not echinate nor globose, fulvous not brown.

1425, *Trist. album* Raf. J. acum. El. polyceph. Short ! glaucum, caule folioso compresso fol. longissimis angustis compressis nodosis, capitulis 3-5 pedunc. paucifl. albescens,bract. lanc. aristatis, cal. echinatis.—Kentucky to Cārol. slender pedal, leaves 6 to 8 uncial.

1426, *Trist. gladiatum* Raf. J. polyceph. Elliot— caule folioso compresso striato, fol. gladiatis compressis nodulosis, capitulis pluris paniculatis divaric. sess. et ped. globosis echinatis fuscofulvis—Carol. Florida, robust,leaves broad pedal, panicle of 20 to 40 heads.

1427, *Trist. striatum* Raf. (fluitans Mx. non Dec. vertic. et polyceph. auct) caule teres subfolioso, fol. filif. vix nodosis, umbella compositа 3-7fida, capit. sess. et ped, vix glob. pallidis, calic. striatis acum.—Canada to Carol. slender stems and leaves.

1428, *Trist. macrocarpon* Raf. J. acum. Mx. O. sed non El. sylvaticus Mg. non Wild.—Canada to Alabama : the synonymy of all these sp. is in utter confusion, I have set aside the specific names nodosum, polyceph. acum. &c which apply to nearly all.

1429, *Trist. stellatum* Raf. caule filif. folioso, fol. tenuis filif. umbella stellata, capit. paucis stellatis paucifl. cal. lanc. acutis—Allegh. Mts. semipedal, leaves short, heads small few 1 to 7, fulvescent.

1430, Var. *bigelowi* Raf. Junc. militaris Big. one leaf, umbel. divaric. some heads changed into utriculose neutral flowers. New Engl.

1431, Var. *paradoxum* Raf. stem subangular, all the flowers glomerate sessile utriculose neutral stellate very large, formed by imbricate glumes lanceol. acum. I consider this singular deviation as an hybrid by *Scleria*, the fl. nearly similar but sterile. Kentucky hills.

1432, *Trist. marginatum* Raf. J. do Rost. —Canada to Carol. this and 2 next are akin with flat leaves, heads 5-10flore in this.

1433, *Trist. laxum* Raf. aristulatus Mx. El. Carol. Florida, heads 3-5flore pale, bracts and cal. acum.

1434, T*rist. biflorum* Raf. Junc, do. E. Carol. Florida, heads panicul. 2-3flore fulvous,cal. acute, leaves carinate. †

1435, T*rist. glomeratum* Raf. J. do O. Europa.

1436, T*rist. falcatum* Raf. caule teres subfolioso, fol. falc. compr. subnodosis, umbella decomposita paniculata, capit. sess. et ped. 3-5floris, cal. acutis, caps. eq. 3fidis 3costatis—Europe, sent me as *Juncus campocarpus*, name not in books. †

1437, T*rist. uliginosum* Raf. J. do Roth—Europe, blended by many with *J. vertic.* quite different, humble triuncial erect, heads sessile paucifl. capsule longer than calix.

1438, T*rist. simplex* Raf. Juncus 3glumis L. O.--Alps, rare, probably of this G. or a peculiar G. *Olisca*, habit of Xuris, scapose, a single head 3-4flore.

1439, Luzula *nivea* Dec. Juncus do L.— Alps, very pretty. This G. was united to Juncus, it differs by 3sperm fruits fl. caliculate.

1440, *Luz. albida* Dec. Europe. †

1441, *Luz. forsteri* Dec. Alps rare. †

1442, *Luz. vernalis* Dec. Boreal Amer. and Europe.

1443, *Luz. spicata* Dec. Mts. of Europe and Canada, the Wapani or white Mts. &c.

1444, *Luz lutea* Dec. Alps. †

1445, *Luz. congesta* Raf. Junc. do Thuil. not in Decandole fl. gallica: Sent me from France.

1446, *Luz. campestris* Dec. Europe and N. Amer. several var. often blended with L. *pilosa*. var. *pumila, cepitosa, bicolor, pallida, purpurea, elatior &c.*

1447, L*uz. acuminata* Raf. repens, glabra, fol. lanceol. acum. striatis nervosis spiculis corymbosis congestis paucifloris fuscatis, calic. acum.—Boreal America, perhaps *J. pilosus* Mg. often blended with last, leaves broader and shorter, 3 uncial, stem semipedal, corymb. not exceeding the leaves, fl. small. †

1448, L*uz. pilosa* Wild. Junc. do. L. Europe, quite distinct from the 2 last by flowers racemose.

1449, *Luz. labradorica* Raf. glabra, fol. lato gramineis acum. fl. corymbosis panicul. pedunc. 1-2fl. cal. acum. fulvis—Labrador near to *L. spadicea*, semipedal, leaves 3-4inches, fl. small. †

1450, L*uz. callosa* Raf. pilosa, caule filif. fol. angustis apice callosis, fl. corymb. dichot. ped. ineq. cal. scariosis fuscatis, albo marginatis cuspidatis caps. longior, stylis cal duplo longior —Mts of Sicily, decmed L. *pilosa* by Sicilian botanists, quite unlike, semipedal, leaves uncial, 3 long styles filiform, calix caliculate by 2 scales as in all.

1451, JUNCUS *effusus* L. O. Europe, N. Am. var. *fuscatus, albescens, paniculatus, laxiflorus, aensiflorus &c.*

1452, *J. glaucus* Sm. Angl. Gallia.

1453, *J. acutus* Sm. Europ. N. Amer.

1454, *J. setaceous* Rost. Canada to Carol.

1455, *J. tenuis* Rost. bicornis Mx. Pursh. Ohio to Florida, several var. *pauciflorus, elatior, spicans &c.*

1456, *J. floridanus* Raf. caule filiformis striato foliosus. fol. filif. compressis unisulcatis corymbo term. paucifl. dichotomo, cal. carinatis acutis caps. eq. obov. rufo-ferugineis—South Florida, pedal, 2 or 3 slender leaves on the stem, corymb. of 10-12fl. of a rusty color like the capsules.

1457, *J. fuscatus* Raf. caule filiformis levis foliosus, fol. setaceis canaliculatis elongatis, fl. cymosis vel umbelatis dichot. cal. linearib. obtusis semiteres fuscatis ad caps. longior—Kentucky, Tennessee &c, pedal, very slender stem and leaves, fl. quite peculiar.

1458, *J. secundiflorus* Raf. caule subnudo spiraliter sulcato, fol. radic. tenuis canalic. nervosis, fl. spicatis unilateralis, spicis dichot. multifl. cymosis, invol. unifolio, cal. glaucis latolanc. cuspid. marg. membranaceis, capsulis obl. subeq. —West Kentucky, Arkanzas &c, nearly pedal, leaves 3-5uncial. fl. large glaucous, very distinct from *J. tenuis* like the two last.

1459, *J. dichotomus* El. bufonius Walt. Mx. Carol. Alab.

1460, *J. recurvatus* Conrad, Raf. dichot. Tor! it differs by being smaller more slender, umbel. or cyme with many branches dichot. divaric. recurvate flexuose, fl. remotely spicate; glades of New Jersey.

1461, *J. squarrosus* O. Europe and Mts. of New England.

1462, *J. aquaticus* W. articulatus et obtusifl. of others. Europe.

1463, J. *filiformis* O. Europe.

1464, J. *sylvaticus* W. P. acutifl. of others. very diff. from J. acutus, Europe.

1465, J. *bulbosus* O. Eur,†

1466, J. *multiflorus* Desf. Barbaria, Egypt.†

1467, J. *maritimus* O. Eur.

1468, J. *comosus* Dav. in Lin. tr. Eur. rare.†

1469, J. *gracilis* Sm. Eur. rare.

1470, J. *triphylus* Raf. caule subnudo filif. striato, fol. sepe 3 tenuis planis nervosis, involucris 3phylis ineq. fl. longior, cyma 3-3fida, ineq. spiculis paucifl. furcatis, cal. fulvis lanceol. acum. subnervosis, caps. ovata rugosa brevior —South New Jersey. near 1458, but smaller semipedal, fl. few fulvous, capsules also.

1471, J. *paupercúlus* Raf. caule filif. folioso sulcato, fol. setaceis planis nervosis, invol. 3phylis ineq. longissimis, spiculis 2-3brevissimis umbelatis 1-5fl. cal. albescens membran, acum. ad caps. obl. longior—Mts. Allegh. near J. *tenuis*, still more slender and few flowers, with foliose stem.

1472, J. *virgátus* Raf. glaucus virgatus, caule subnudo compr. levis, fol. tenuis longissimis depressis 3nervis, invol. 3-5phyl. setaceis longiss. ineq. fl. cymosis decomp. virgatis fastig. sqlit. vel geminatis sess. vel ped. caliculus adpressus, cal. lanceol. ineq. acutis caps. longior. —Florida,akin to J.tenuis and buffonius deemed the real *bicornis* by Leconte, large 15 to 20 inches high, fl. glauçous.

1473, J. *convolutus* Raf. caule subnudo sulcato. fol. convol. teretib. solidis vix striatis, in-

vol. 3ph. brevis, cyma decomp. congestis, fl. sess. cal. convolutis acutis pallide fuscatis, caps. obov. brevior—Apalachian Mts. sesquipedal, leaves semipedal, fl. pale brown.

1474, *J. creticus* Raf. caule folioso tenuis, fol .crassis tenuis elongatis subtus striatis, involl. 1-2ph. setaceis, cyma trifida decomp. fl. sessil. calic. scariosis albis lanc. acum. ineq. caps. obl. brevior—Creta, Sicily, 4-6inches : one of the many sp. blended in J. buffonius, which all appear to form a subg. AGATHRYON Raf. by calix very unequal, well caliculate, to it belong J. *grandiflorus*, *virgatus* and all the next.

1475, J. *pumilus* Raf. caule subnudo pumilo cespitoso furcato, fol. setaceis semiteres, involl. 2ph. fl. subsess. terminalis sepe geminis ternisque, cal fulvesc. lanc. acutis, caps. brevior valvis truncatis retusis—Europe et Amer. bor. 1-2uncial, yet fl. large fulvous.

1476, J. *buffonius* L. Europe North America, cespitose dichot. fl. spicate, caps. valves obtuse, leaves flat nervose, several var. *flexuosa*, *gracilis*, *maritima*, *fulva*, but the next appears peculiar.

1477, J. *cespifolius* Raf. fol. cespitosis tenuis setaceis elongatis canalic. caulib. subnudis filif. sulcatis ad fol. eq. involucris diphylis ineq. flor. congestis 2-10 sessil. fulvis, cal. linearib. carinatis, caps. subeq. valvis truncatis—Allegh. Mts. 3 to 4 inches, leaves many, stems few, fl. subcymose when more than 3.

1478, ACORUS *americanus* Raf. med. fl. 1. new fl. 57. North Amer.

1479, *Ac. gramineus* L. China.†

1480, *Ac. angustatus* Raf. scapis angustis compressis unisulc. apice gladiatis tenuis acutis, spica medialis, fol. radic. scapis brevior angus-

tis vix. nervosis—Alabama, scape bipedal slender like the shorter leaves, spike biuncial. †

1481, *Ac. flexuosus* Raf. fl. tex. 29, new fl. 57—Texas, Arkanzas, smaller than last, scape flexuose 3gone semipedal.†

1482, *Ac. floridanus* Raf. n. fl. calamus Elliot---Flor. Carol. scape short 3gone, spike nearly terminal &c. †

1483, ORONTIUM *aquaticum* L. (vel ellipticum R.) North Amer. leaves elliptic mucronate, var. *obliquatum, glaucum, latifolium* &c.

1484, *Or. angustifolium* Raf. fol. lanceol. acutis basi angustatis vel petiolatis, scapis gracilis nudis flexuosis vel rectiusculis vix clavatis, spica teres gracilis—Maryl. Virg. Carol. deemed a var. of last, but leaves quite narrow 8 to 10 inches long, only one broad, slender scape and spike.

1485, *Or. vaginatum* Raf. fol. petiol. ovato-lanceol. basi rotundatis apice sensim acutis,scapis brevis rectis vaginatis, vagina apice spathacea, spica brevis parvula—West Kentucky, Arkanzas &c rare, leaves semipedal, scape shorter slender, a long spatha vaginate at base nearly as long as scape. †

1486, AMIDENA *undulata* Raf. fol. sessilib. elongatis planis lanceol. undulatis obtusis; scapo brevior, spica elliptica, bracteis adnatis concavis—Sibiria, sent me as *Orontium japonicum* the type of the G. *Amidena* of Adanson. see my fl. tel. 822, which has leaves gladiate convolute: this has leaf nearly pedal, fl. yellowish. †

1487, TYPHA *crassa* Raf. atl. j. 148, new fl. 486, N. Amer.

1486, *Typha gracilis* R. n. fl. 489. New Jersey, to Virg.

1487, *Typha angustif.* L. Europe, the 2 above Amer. sp. are blended in it and T. latif. of our authors.

1488, SPARGANIUM *r^mosum* Sw. erectum L. Europe and North Amer. all the following sp. once blended with it.

1489, *Sparg. americanum* N. Eat. New York, Ohio.

1490, *Sparg. angustifolium* Mx. Canada, Alleghanies.

1491, *Sparg. simplex* Roth, boreal Europe and America.

1492, *Sparg. natans* Sm. Europe.

1493, *Sparg. axilare* Raf. simplex Pursh, caule simpl. flex. compresso, fol. equante vittatis angustis rectis obt. basi convolutis ad marg. membr. undul. spica simpliciusc. capitulis axil. infimis pedunc. stylis subul. stig. uncinat. fl. masc. proximis—Mts. Allegh. Ohio &c, pedal, leaves semipedal narrow hardly broader at base.

1494, *Spurg. ligulare* Raf. americ? Elliot non Nut. caule ramoso tereto flexuoso, fol. subeq. vittatis obt. basi concavis, spicis filif. flexuosis elongatis, fl. masc. remotis fascic. paucifl. capit. fem. 1-2remotis nudis stylis ligulatis planis obtusis—Carol. Florida bipedal,leaves semipedal, very distinct. †

1495, DENDROPOGON *usneoides* Raf. neog. fl. tel. 860. Tillandsia do L. O. Carol. to Louis. Elliot first noticed that this G. is triandrous.

1496, TILLANDSIA *bartrami* El. Lec. Florida, rare. †

1497, *Till. juncea* Lec. Florida.

1498, *Till. cinerea* Raf. (or *Karaguata do*) recurvata Mx. El. non L. canescens of others not of L.—humilis pruinosa villosa cinerea,caule basi folioso fol. cespitosis filiformis recurvatis,

spathis term. 2ph. striatis brevis 1-2floris, cal. lanc. mucronatis petalis eq.—Florida, mistaken for 2 South Amer. sp. 4 to 6 inches high, the capsule is 1 loc. and thus it is of G. *Karaguata* of Adanson, as many others.

1499, *Till. utriculata* L. polystachya Mg. non L. South Florida, well descr. by Leconte, but perhaps a *Karaguata* also and several sp. blended, if peculiar *Til. or K. dilatata* R.

1500, *Till. convoluta* Raf. scaposa, fol. lanceol. acutis rigidis convolutis glaucis, scapo spicato, spathis imbricatis elong. lanceol. convol. acum. nervosis, florib. inclusis—Brazil, collected by Baldwin, apparently new, leaves 4 to 6 inches, scape hardly longer, spathes biuncial fulvous, parasitical.†

This Century thus contains 6 New Genera whereof 2 now described, and 37 N. Sp. whereof 33 are now first described.

Therefore this third part or series of the AUTIKON includes in 5 Centuries as many as 41 New Gen. whereof 17 hitherto undescribed, and the illustrations thereof 192, new sp. whereof 122 are described for the first time.

Correction. My G. *Nevrolis* 1102 is too near my own *Nevrilis* sylva tel. 881, and *Neurola* subg. of New Flora 975: therefore let it be changed to *Lepiphaia* Raf.

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